

**Via Email**

December 13, 2022

NCDEQ – Division of Waste Management  
Brownfields Program  
1646 Mail Service Center  
Raleigh, NC 27699-1646

Attn: Ms. Sharon Eckard, PG

Re: Brownfields Assessment Report  
Chapel Hill Police Department  
828 Martin Luther King Jr. Blvd Property  
Chapel Hill, North Carolina  
Brownfields Project No. 23022-19-068  
H&H Project No. TCH-009

Dear Sharon:

On behalf of the Town of Chapel Hill, please find the enclosed Brownfields Assessment Report prepared for the Chapel Hill Police Department Brownfields property located at the above-referenced address. Should you have questions or need additional information, please do not hesitate to contact me at (919) 847-4241.

Sincerely,

***Hart & Hickman, PC***



Justin Ballard, PG  
Project Manager

Enclosure

cc: Laura Selmer, Town of Chapel Hill (via email)  
John Richardson, Town of Chapel Hill (via email)  
Steve Hart, Hart & Hickman, PC (via email)

# Brownfields Assessment Report

## 828 Martin Luther King Jr. Blvd. Property Chapel Hill, North Carolina Brownfields Project No. 23022-19-068

H&H Job No. TCH-009  
December 13, 2022



*Justin C. Ballard*

12/13/22



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**Brownfields Assessment Report**  
**828 Martin Luther King Jr. Blvd. Property**  
**Chapel Hill, North Carolina**  
**H&H Job No. TCH-009**

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**Brownfields Assessment Report**  
**828 Martin Luther King Jr. Blvd. Property**  
**Chapel Hill, North Carolina**  
**H&H Job No. TCH-009**

**1.0 Introduction**

On behalf of the Town of Chapel Hill (Town), Hart & Hickman, P.C. (H&H) conducted Brownfields assessment activities at the 828 Martin Luther King Jr. Boulevard (a.k.a. Chapel Hill Police Department) Brownfields property (Brownfields Project No. 23022-19-068) located at 828 Martin Luther King Jr. Boulevard in Chapel Hill, Orange County, North Carolina (subject Site or Site). The Site is comprised of one parcel of land that is approximately 10.24 acres in size and is developed with a two-story approximately 35,000 square foot (sq ft) building located in the north-central portion of the Site. The building and associated parking areas are currently used for police department operations by the Town. The Site topography consists of an elevated area where the police building and associated parking lots are located which slopes along an embankment to the south to a lower area along Bolin Creek where the Bolin Creek Trail is located. Area topography is indicated in Figure 1, and a Site Map with Site features, surrounding area uses, and detailed topography is included as Figure 2.

The Town is currently evaluating potential mixed-used redevelopment options for the Site that may include a new Municipal Services Center, office, and/or retail spaces. As part of the evaluation process, the Town applied for entry into the North Carolina Department of Environmental Quality (DEQ) Brownfields Program and received eligibility via a Letter of Eligibility dated October 1, 2019. Assessment activities described in this Brownfields Assessment Report are associated with work completed at the request of the DEQ Brownfields Program based on potential redevelopment plans. Conceptual redevelopment plans, including potential future building locations and stormwater infrastructure, are shown in Figure 3.

A brief summary of the Site background and prior environmental assessment activities conducted at the Site is provided in Section 2.0 below.

## 2.0 Site Background

Previous assessment activities indicated that the Site was initially used as a borrow pit from the late 1950s to early 1960s, and then was used as a fill site by a previous owner for placement of construction debris and coal combustion products (CCPs) from the mid-1960s to the mid-1970s. In the early 1980s, the Town acquired the property and constructed the current police department building. The Site consists of an upper level where the borrow pit was located which is now occupied by the police department building and parking areas, and a lower level adjacent to Bolin Creek where the Bolin Creek Trail is located. The upper and lower levels are separated by a steep embankment. The Site layout, topography, and estimated area where CCPs are present are depicted in Figure 2.

Assessment activities were conducted at the Site from 2013 to 2020 to investigate potential environmental impacts associated with the historical placement of structural fill containing CCPs. The investigation activities included the collection and laboratory analysis of CCPs, groundwater, soil, sediment, and surface water samples. Based on assessment activities, the primary compounds of concern (COCs) detected in CCPs, shallow soil, and drainage pathway soil are certain metals. Results of analysis of samples of CCPs indicate that arsenic, barium, manganese, mercury, and selenium were detected above soil background levels and the DEQ Preliminary Soil Remediation Goals (PSRGs). The most prevalent compound detected above soil background levels and PSRGs in CCPs is arsenic.

In addition to COCs being identified in CCPs and soil, COCs have been detected in perched water zones within the fill material. However, groundwater assessment activities identified limited to no impacts in the underlying unconfined aquifer within and downgradient of the fill area. Assessment activities also identified no significant impacts to stream sediment or surface water in Bolin Creek. Additional background information and the methods and results of previous assessment activities are provided in the following documents:

- *Phase I & Limited Phase II Environmental Site Assessment*, Falcon Engineering, Inc., July 18, 2013;
- *Phase II Remedial Investigation Report*, H&H, January 26, 2017;
- *Results of Data Gap Sampling Report*, H&H, May 23, 2019; and
- *Results of Post-Data Gap Assessment Report*, H&H, December 1, 2020.

In 2020, interim remedial measures (IRMs) were implemented which included excavation and off-Site disposal of soil and exposed CCPs along Bolin Creek Trail, stabilization and cover of exposed CCPs along the embankment between the upper and lower portions of the Site, and temporary measures to address stormwater and erosion control in the area of the embankment. Specifically, approximately 1,004 tons of soil/CCPs at the base of the embankment and along Bolin Creek were excavated and transported off-Site for disposal. In addition, super-silt fencing and hydroseed were placed along the embankment, and a new stormwater diversion channel was installed along portions of the top of the embankment to minimize the potential for future erosion of soil/CCPs on the embankment. The interim measures are documented in an *Interim Remedial Measures Report* prepared by H&H dated April 19, 2021.

Risk assessment activities performed after IRMs concluded that the Bolin Creek Trail is safe for users. Under present conditions, CCP fill material at the Site is covered by at least 2 ft of soil cover, with the exception of localized areas in the upper level with 1 to 2 ft of soil cover and localized areas of CCPs along the embankment where IRMs were implemented (see Figure 2). Based on potential future redevelopment scenarios, the Town requested that H&H perform additional risk assessment activities to evaluate further measures recommended to address CCPs at the Site. The risk assessment recommended the implementation of permanent measures to address exposed CCPs along the embankment, potentially addressing isolated areas of soil impacts if the Site is used for residential purposes, and managing CCPs through the implementation of land use restrictions (LURs) and/or a DEQ-approved Environmental Management Plan (EMP), which can all be implemented as part of Site redevelopment. Details associated with the risk assessment activities are provided in a *Risk Assessment Report* dated October 7, 2021.

On March 30, 2022, H&H participated in a virtual meeting with the DEQ Brownfields Program and Town personnel to discuss potential data gaps and the scope of Brownfields assessment activities to address potential data gaps. On June 22, 2022, H&H participated in an additional virtual meeting with the DEQ Brownfields Program to further discuss proposed Brownfields assessment activities. The June 22 meeting resulted in an email from DEQ requesting assessment of perched water/groundwater, soil, soil gas, and sub-slab vapor at the Site. To address DEQ's request for assessment at the Site, H&H submitted a Brownfields Assessment Work Plan (Work Plan) dated July 21, 2022. Following review of the Work Plan, DEQ provided comments in an email dated August 18, 2022. A Revised Work Plan dated August 18, 2022 was subsequently submitted and received approval via an email dated August 30, 2022.

A summary of Brownfields assessment activities conducted in accordance with the Work Plan is provided in the following sections.



### 3.0 Brownfields Assessment Activities

In August and September 2022, H&H completed Brownfields assessment activities at the Site in accordance with the DEQ Brownfields-approved Work Plan. The activities included assessment of soil, perched water/groundwater, sub-slab vapor, and soil gas to further evaluate potential impacts at the Site and potential risks associated with conceptual Site redevelopment plans. In addition, receptor survey activities were completed to obtain information about land use, water supply, basements, underground utilities, and surface water bodies in the vicinity of the Site.

Prior to conducting the field activities, H&H contacted North Carolina 811, the public utility locator, to mark subsurface utilities located on the Site. H&H also contracted with a private utility locator to screen proposed sample locations for subgrade utilities not marked by the public locator. Additionally, soil boring locations were hand cleared to 5 feet below ground surface (ft bgs) to further screen the boring locations for the presence of subsurface utilities.

The proposed Brownfields assessment activities were performed in general accordance with the DEQ Inactive Hazardous Sites Branch (IHSB) *Guidelines for Assessment and Cleanup* (Guidelines) dated July 2021, the DEQ Division of Waste Management (DWM) *Vapor Intrusion Guidance* dated March 2018, Brownfield's *Vapor Intrusion Assessment Work Plan & Report Checklist (VI Checklist)* dated July 2021, and the most recent versions of the U.S. EPA Region IV Laboratory Services and Applied Science Division (LSASD) *Field Branches Quality System and Technical Procedures* guidance.

A summary of receptor survey results is provided in Section 4.0; details of soil assessment activities are provided in Section 5.0; details of perched water and groundwater assessment activities are provided in Section 6.0; details of sub-slab vapor and soil gas assessment activities are provided in Section 7.0; a summary of quality assurance and quality control procedures is provided in Section 8.0; a summary of investigative derived waste and management activities is provided in Section 9.0; and summary and conclusions based on the results of the assessment activities are provided in Section 10.0.

## 4.0 Receptor Survey

On October 27, 2022, H&H conducted receptor survey activities at the Site and in the nearby area. The receptor survey included a pedestrian and vehicular survey to obtain information about land use, potential water supply wells, basements, utility manways and chases, storm sewers, other underground utilities, and surface water bodies located within a 1,500-ft radius of the Site. H&H also contacted the Orange County Department of Environmental Health to obtain information regarding potable water supply wells located within the search radius.

In addition, H&H reviewed the online DEQ Source Water Assessment Program (SWAP) geographic information system map to identify public water intakes in the area of the site, we identified land use and zoning using Orange County online resources, and we identified underground utility locations using utility mark outs completed after notification to NC 811 and visual Site observations. The Brownfields Property Receptor Survey Form is included in Appendix A, and a Receptor Survey Map is provided as Figure 4. The results of the receptor survey are summarized below.

### Zoning

The Site has a residential (R-2) zoning designation. The adjacent properties to the north, east, and west are also zoned residential. The southern adjacent properties are designated neighborhood/commercial.

### Municipal Water Availability

Municipal water supplied by Orange Water and Sewer Authority (OWASA) is available to the Site and surrounding area. OWASA sources water from Cane Creek Reservoir and University Lake, located approximately 10 miles northwest and three miles southwest of the Site, respectively. H&H observed municipal water meters and fire hydrants for the Site and surrounding properties which are indicative of municipal water supply.

### Water Supply Wells

H&H contacted OWASA and conducted a pedestrian and vehicular survey of nearby properties to identify potential water supply wells within a 1,500-ft radius of the Site. One potential private well was identified during desktop research at 3 Mt Bolus Road, which is located approximately 500 ft to the north of the Site. According to OWASA, the property address is connected to public water and sewer. No other private or public water supply wells were identified within a 1,500-ft radius of the Site. Based on the DEQ SWAP map, the nearest public water supply wells are located approximately three miles west of the Site. In addition, a public water intake for OWASA is located approximately 2.5 miles west of the Site on University Lake. Bolin Creek near the Site does not discharge to University Lake.

### Surface Water Bodies

According to the DEQ Division of Water Resources *North Carolina Surface Water Classifications Map* and Google Earth, Bolin Creek is the closest surface water body to the Site, which runs along the southern property boundary of the Site. DEQ classifies Bolin Creek as a Water Supply (WS-V) water body with a supplemental Nutrient Sensitive Water (NSW) classification. WS-V waters are protected as water supplies which are generally upstream and draining to Class WS-IV waters or waters used by industry to supply their employees with drinking water or as waters formerly used as water supply. An NSW supplemental classification is for water bodies needing additional nutrient management due to being subject to excessive growth of microscopic or macroscopic vegetation.

Additionally, stormwater and unnamed intermittent surface runoff features were observed to the south, west, and east of the site, which enter Bolin Creek. No other surface water bodies were observed by H&H during the pedestrian and vehicular survey of nearby properties within the 1,500-ft radius.

### Other Receptors

H&H identified three collegiate centers within the 1,500-ft radius which are denoted on the vicinity map. The closest collegiate centers are the University of North Carolina (UNC) Highway Safety Research Center (730 Martin Luther King Jr. Blvd), the Sheps Center for Health Services

Research (725 Martin Luther King Jr. Blvd), and the UNC Office of Human Research Ethics (720 Martin Luther King Jr. Blvd), which are located approximately 550 ft south, 750 ft southwest, and 800 ft south from the Site, respectively. In addition, the Bolin Creek Trail runs along Bolin Creek and near the southern property boundary. The Bolin Creek Trail is a paved recreational trail that runs along Bolin Creek. No other land uses of interest were identified in close proximity to the Site.

### Subsurface Structures

H&H contacted North Carolina 811, the public utility locator, to mark subsurface utilities located on the Site and conducted a visual reconnaissance in the Site area to identify potential subsurface structures within 100 ft of the subject Site. H&H observed evidence of subsurface utilities, including sanitary sewer, storm sewer, municipal water, natural gas, telephone/cable main, and an electrical cable main adjacent to and/or on the subject Site. H&H observed multiple residential structures with obvious basements within a 1,500-ft radius of the Site.

## 5.0 Soil Assessment Activities

On September 6, 2022, H&H mobilized to the Site to advance soil borings in the proposed stormwater pond area located in the eastern portion of the Site, and in the vicinity of a diesel fuel aboveground storage tank (AST) associated with the existing Site building. The AST is associated with an emergency generator located in the northern portion of the Site. The locations of the soil borings (identified as HH-12 through HH-15) in conjunction with conceptual redevelopment plans are shown on Figure 3.

Details of the soil sampling activities and results are provided in the following sections.

### 5.1 Soil Sampling Methodology

H&H used a decontaminated, stainless steel hand auger to advance the borings to a depth of approximately 5 ft bgs. Continuous soil samples were collected from the borings and logged for lithological description and field screened for indication of potential impacts by observation for staining, unusual odors, the presence of CCPs, and the presence of volatile organic vapors using a calibrated photoionization detector (PID). As detailed below, CCPs were not observed in the soil borings. The boring logs are provided in Appendix B.

Soil borings were advanced at the following locations:

- HH-12 was advanced to approximately 5 ft bgs adjacent to the east of the diesel fuel AST. Field observations did not indicate potential impacts (i.e., absence of CCPs, significantly elevated PID readings, staining, and/or odors). As such, a sample was collected for laboratory analysis from the interval that exhibited the highest PID readings (4-5 ft bgs). The sample was submitted for laboratory analysis of volatile organic compounds (VOCs) by EPA Method 8260, semi-VOCs (SVOCs) by EPA Method 8270, and the following metals: arsenic, barium, beryllium, cadmium, total chromium, cobalt, copper, manganese, nickel, selenium, thallium, and vanadium by EPA Method 6020, hexavalent chromium by EPA Method 7199, mercury by EPA 7471, and strontium by EPA Method 6010.

- HH-13 through HH-15 were advanced to approximately 5 ft bgs in the proposed stormwater pond area. Field observations did not indicate potential impacts; therefore, a sample was collected for laboratory analysis from the interval that exhibited the highest PID readings (0-2 ft bgs) in each respective boring. The samples were submitted for laboratory analysis of VOCs by EPA Method 8260, SVOCs by EPA Method 8270, and the above metals by EPA Methods 6010/6020/ 7199/7471.

Soil samples were placed in dedicated laboratory-supplied sample containers, labeled with the sample identification, date, and requested analysis, and placed in a laboratory-supplied cooler with ice. The soil samples were then submitted to a North Carolina-certified laboratory, Pace Analytical (Pace), under standard chain of custody protocols for analyses as described above. The chain of custody is provided in the laboratory analytical report provided in Appendix C.

Investigation derived waste (IDW) generated during the assessment activities was thin-spread on-site in landscape islands as there was no evidence of significant impacts in the borings. Following sampling activities at each location, the soil borings were properly abandoned with soil cuttings and the surface was repaired similarly to pre-sampling conditions. Additionally, each soil sample location was recorded using a hand-held global positioning system (GPS) unit.

## **5.2 Soil Analytical Results**

A tabular summary of recent and historical soil sample analytical results for metals is presented in Table 1A. A tabular summary of recent soil sample analytical results for VOCs and SVOCs is presented in Table 1B. The laboratory analytical reports and chain-of-custody records are provided in Appendix C. The laboratory analytical results were compared to the DEQ Protection of Groundwater (POG) and Industrial/Commercial PSRGs dated July 2022. In addition to the PSRGs, metals results were compared to previously calculated Site-specific Background Screening Values (BSVs). Based on EPA guidance (EPA, 2015a, 2018a, 2018b), the BSVs for metals in soil consist of 95% upper tolerance limits (UTLs) with 95% coverage determined using EPA's ProUCL calculator (EPA, 2015a). Note that the Site-specific BSVs are provided in

Table 1 and are based upon the results of analysis of the background soil samples collected in November 2016 and April 2019. A summary of the soil assessment results is provided below.

### VOCs

Laboratory analytical results indicate low levels of several VOCs were detected above laboratory method detection limits (MDLs) in each soil sample; however, none of the detected concentrations exceed the POG or Industrial/Commercial PSRGs.

### SVOCs

Laboratory analytical results indicate no SVOCs were detected above laboratory MDLs.

### Site-Specific COCs (Metals)

As expected, naturally-occurring levels of Site-specific COCs were detected at concentrations above laboratory MDLs in each soil sample; however, none of the detected concentrations exceed Site-specific BSVs. Of the metals detected, concentrations of arsenic (up to 2.0 mg/kg), hexavalent chromium (laboratory estimated values [i.e., “J” qualified] up to 0.583 J mg/kg), cobalt (up to 13.1 mg/kg), and manganese (up to 368 mg/kg) are above the POG PSRGs, but are consistent with background levels.

## **5.3 Direct Soil Contact Risk Evaluation**

The DEQ PSRGs used for comparison to the laboratory analytical results are conservative and based upon a target Lifetime Incremental Cancer Risk (LICR) of  $1.0 \times 10^{-6}$  for potential carcinogenic effects and a Hazard Quotient (HQ) of 0.2 for potential non-carcinogenic effects. The DEQ and EPA acceptable level for potential carcinogenic risks is a cumulative LICR of  $1.0 \times 10^{-4}$  or less, and the acceptable level for non-carcinogenic risks is a cumulative Hazard Index (HI; which is the sum of the individual compound HQs) of 1.0 or less.

To further evaluate the data obtained from the recently collected soil samples HH-12 through HH-15, H&H utilized the DEQ Risk Calculator (July 2022) to evaluate soil direct contact risks under hypothetical “worst-case” non-residential worker use scenarios. For the hypothetical “worst case” scenario, the highest concentration of each compound detected in any of the four

samples was input into the calculator. Because EPA and DEQ do not require remediation of concentrations below naturally occurring background levels, in the risk calculations, H&H did not include metals concentrations consistent with background. However, for comparison purposes, H&H also performed the risk calculations including metals concentrations consistent with background. Copies of the completed DEQ Risk Calculators are provided in Appendix D. The Risk Calculator results are discussed further below.

#### Background Metals Concentrations Excluded

- Hypothetical worst-case soil DEQ Risk Calculator results for a non-residential worker excluding metals concentrations consistent with background indicate a calculated cumulative LICR of  $2.1 \times 10^{-10}$  and a calculated cumulative HI of 0.000012, which do not exceed DEQ acceptable levels.

#### Background Metals Concentrations Included

- Hypothetical worst-case soil DEQ Risk Calculator results for a non-residential worker including background metals concentrations indicate a calculated cumulative LICR of  $7.6 \times 10^{-7}$  and a calculated cumulative HI of 0.076, which do not exceed DEQ acceptable levels.

The soil sampling data represented by samples HH-12 through HH-15 indicate acceptable risks for non-residential workers for the soil direct contact exposure pathway.



## 6.0 Perched Water and Groundwater Assessment Activities

On August 30 and 31, 2022, H&H mobilized to the Site to sample the existing monitoring wells at the Site. The existing monitoring well network includes an upgradient well (MW-5), wells installed in perched water in the fill (MW-1, MW-1A, MW-8 and MW-9), wells downgradient and cross-gradient of the fill area (MW-3A, MW-4A, MW-6, and MW-7), and a well in bedrock below the fill (MW-11D). The locations of the existing monitoring wells are depicted on Figure 3.

Details of the perched water and groundwater sampling activities and results are provided in the following sections.

### 6.1 Monitoring Well Gauging

Before the sampling event, all Site monitoring wells were gauged for depth to water. A summary of the depth to water measurements is provided in Table 2. Perched water and groundwater elevations were generally consistent between the February 2020 and August 2022 gauging events for background well MW-5. However, other monitoring wells indicated water elevations in August 2022 that were approximately 2 to 4 ft lower than during the February 2020 monitoring event. The lower water elevations observed in August 2022 are generally consistent with measurements collected during the previous later summer/early fall gauging event conducted in September 2019.

As further discussed in the December 2020 *Results of Post-Data Gap Assessment Report*, rainwater that infiltrates the ground and moves downward may get trapped by low permeability zones in the fill above the unconfined aquifer and form perched water zones. These zones are typically laterally discontinuous and only contain thin layers of water. Some of the perched water may seep from the edges of the perched water zone to the underlying aquifer, although the volume of seepage is typically small, especially in comparison to the volume of water in the underlying aquifer.

Because of the apparent presence of perched water zones in the fill materials, H&H prepared an inferred groundwater potentiometric map for the August 2022 gauging event using the groundwater elevation data from wells MW-3A, MW-4A, MW-5, MW-6, and MW-7 which are not screened in the fill materials and which are installed in the underlying unconfined aquifer. The potentiometric map is provided in Figure 5 and indicates that overall groundwater flow is to the southeast, which is consistent with previous gauging events.

## 6.2 Monitoring Well Sampling

After gauging, the monitoring wells were purged to ensure that water samples obtained from the wells were representative of perched water in the fill or underlying groundwater. Purging and sampling of the monitoring wells were completed using low flow/low stress method in general accordance with EPA Region IV LSASD protocol. Monitoring wells MW-3A, MW-4A, MW-5, and MW-6 were purged and sampled using a peristaltic pump with new polyethylene tubing. Due to depths to water greater than 25 ft, monitoring wells MW-1A, MW-7, MW-8, MW-9, and MW-11D were purged and sampled using decontaminated bladder pumps connected to new polyethylene tubing. Note that due to the low volume of perched water in monitoring well MW-1, purging (and therefore sampling) of the well was not performed.

During purging, field measurements of pH, temperature, dissolved oxygen, oxidation reduction potential, turbidity, and conductivity were collected at 3 to 5-minute intervals. The intake point of the pump tubing was placed in the approximate mid-portion of the screened interval of each well and groundwater was removed at a rate no greater than 200 milliliters per minute. Purging was considered complete when water quality parameters stabilized (i.e., pH  $\pm$  0.1 SU, conductivity varies no more than 5%, and turbidity is less than 10 Nephelometric Turbidity Units [NTUs]). H&H was able to obtain samples with turbidity less than 10 NTUs at each monitor well. The low flow groundwater sampling records are provided in Appendix E.

Following purging, groundwater samples were collected from Site monitoring wells using the same low flow/low stress techniques as used during purging. Groundwater samples from the monitoring wells were collected directly into laboratory supplied sample containers. For VOC

samples in which a peristaltic pump was used for purging, the samples for VOC analysis were collected using the “soda straw” method to minimize volatile loss through the peristaltic pump head. Specifically, sample tubing was removed from the well and used to fill the sample containers by reversing the flow direction of the peristaltic pump.

After collection, the sample containers were labeled with the sample identification, date, and requested analysis, and then placed in a laboratory supplied cooler and iced. The groundwater samples were delivered to Pace under standard chain of custody protocols for analysis of VOCs by EPA Method 8260 (including low level 1,4-dioxane via Selected Ion Monitoring [SIM]), SVOCs by EPA Method 8270, hexavalent chromium by EPA Method 7199, strontium by EPA Method 6010, and the following inorganics analytes list determined by DEQ (DEQ Analyte List).

Antimony <sup>2</sup>	Arsenic <sup>2</sup>	Barium <sup>1</sup>	Beryllium <sup>2</sup>
Boron <sup>1</sup>	Cadmium <sup>2</sup>	Chloride <sup>4</sup>	Chromium (total) <sup>2</sup>
Cobalt <sup>2</sup>	Copper <sup>2</sup>	Fluoride <sup>4</sup>	Lithium <sup>2</sup>
Manganese <sup>1</sup>	Mercury <sup>3</sup>	Molybdenum <sup>2</sup>	Nickel <sup>2</sup>
Nitrate <sup>4</sup>	Selenium <sup>2</sup>	Sulfate <sup>4</sup>	Total Dissolved
Thallium <sup>2</sup>	Vanadium <sup>2</sup>	Zinc <sup>1</sup>	Solids (TDS) <sup>5</sup>

Notes:

1. EPA Method 6010
2. EPA Method 6020
3. EPA Method 7470
4. EPA Method 9056
5. ASTM D5907

The above DEQ Analyte List and associated analytical methods were derived from a modified version of Duke Energy’s monitoring plan for an industrial landfill at the Marshall Steam Station facility in Catawba County, North Carolina that is permitted to receive CCPs as well as other materials. As previously noted, a water sample was not collected from MW-1 due to an insufficient volume of groundwater.

In accordance with the DEQ-approved Work Plan, IDW water generated during the assessment activities was placed in proximity to the on-Site monitoring well network on pervious surfaces to allow for re-infiltration.

### **6.3 Perched Water and Groundwater Analytical Results**

A tabular summary of recent and historical perched water and groundwater sample analytical results is presented in Table 3, and a summary of recent and historical field geochemical parameters is provided in Table 4. In Table 3, analytical data are compared to background (MW-5) and to the Title 15A NCAC 02L.0202 Groundwater Standards (2L Standards) amended on April 1, 2022. The laboratory analytical report and chain-of-custody records are provided in Appendix C.

Some observations concerning the data from the August 2022 sampling event are provided below:

- Laboratory analytical results indicate no VOCs or SVOCs were detected above laboratory MDLs.
- A background level of manganese (614 micrograms per liter [ $\mu\text{g/L}$ ] versus 2L Standard of 50  $\mu\text{g/L}$ ) was identified in the groundwater sample collected from monitoring well MW-5. The background presence of manganese is consistent with laboratory analytical results from the November 2016 groundwater sampling event when manganese was detected at 580  $\mu\text{g/L}$ . No other compounds were detected above the 2L Standards in background monitoring well MW-5.
- The results of analysis of the perched water sample collected from monitoring well MW-1A indicate the presence of arsenic (37.0  $\mu\text{g/L}$  versus 2L Standard of 10  $\mu\text{g/L}$ ), barium (852  $\mu\text{g/L}$  versus 2L Standard of 700  $\mu\text{g/L}$ ), and manganese (1,380  $\mu\text{g/L}$  versus background level of 614  $\mu\text{g/L}$ ). The August 2022 results are generally consistent with

concentrations of arsenic, barium, and manganese identified during the September 2019 sampling event.

- The results of analysis of the perched water sample collected from monitoring well MW-3A indicate concentrations of manganese (664 µg/L) slightly above the background level of 614 µg/L. Manganese was not detected at concentrations above the 2L Standard or background during previous sampling events; however, the recent detection is generally consistent with background levels.
- The results of analysis of the perched water samples collected from monitoring wells MW-8 and MW-9 indicate concentrations of cobalt (up to 5.3 µg/L in MW-9) and manganese (up to 5,220 µg/L in MW-9) were detected above the 2L Standards and background levels. The August 2022 results are consistent with concentrations identified during the September 2019 sampling event.
- Laboratory analytical results for total dissolved solids (TDS) indicate perched water sample concentrations above the 2L Standard of 500,000 µg/L in monitoring wells MW-1A (774,000 µg/L), MW-3A (952,000 µg/L), and MW-9 (530,000 µg/L).
- In bedrock well MW-11D which is located below the fill adjacent to MW-9, metals concentrations were significantly lower than those in the fill and no compounds were detected above the 2L Standards. For example, in MW-11D, cobalt was detected at a laboratory-estimated concentration (0.15 µg/L) versus a concentration of 5.3 µg/L in MW-9. In addition, manganese was detected at 48.6 µg/L in MW-11D (below the 2L Standard of 50 µg/L and background level of 614 µg/L) in comparison to the detection of 5,220 µg/L in MW-9.

## 7.0 Sub-Slab Vapor and Soil Gas Assessment Activities

On September 1 and 2, 2022, H&H conducted sub-slab vapor and soil gas assessment activities at the Site to evaluate the potential for structural vapor intrusion into the current police building and potential future Site structures associated with a new Municipal Services Center, office, and/or retail spaces. As part of the assessment, seven temporary soil gas monitoring points (SG-1 through SG-7) and two temporary sub-slab vapor monitoring points (SSV-1 and SSV-2) were installed at the Site. Sub-slab vapor locations (represented by SSV nomenclature) and soil gas (represented by SG nomenclature) relative to proposed redevelopment plans are depicted in Figure 3. Details of the assessment activities and results are provided in the following sections.

### 7.1 Soil Gas and Sub-Slab Vapor Sampling Activities

H&H installed the soil gas monitoring points by advancing borings via a decontaminated, stainless steel hand auger to depths of approximately 5.5 ft bgs. The soil gas points were each installed with a 6-inch long, 0.010-inch diameter stainless steel screen that was set at the base of the boring and connected to the ground surface with ¼-inch Teflon® tubing. The annular space of the boring was then filled with filter sand followed by a hydrated bentonite seal to prevent short-circuiting of air from the surface. Prior to the collection of the soil gas samples, the monitoring points were allowed to equilibrate for at least 48 hours following installation.

The sub-slab gas monitoring points were installed using a Cox Colvin Vapor Pin™ kit (vapor pin). To install the vapor pins, H&H used a hammer drill equipped with a 5/8-inch diameter bit to penetrate the concrete slab. Following borehole advancement, loose cuttings were removed with a shop-vac to allow proper installation of the vapor pin. The vapor pin assembly (brass sampling point and silicone sleeve) was placed and seated in the drilled hole by tapping the assembly into place using the installation/extraction tool and a dead blow hammer. The vapor pins were then connected to ¼-inch Teflon® tubing to allow for the sampling procedures described below. Prior to collection of the sub-slab vapor samples, the monitoring points were allowed to equilibrate for at least 2 hours following installation.

Following sample point equilibration and prior to sample collection, a Landtec GEM 5000<sup>®</sup> (GEM) was connected to the sample Teflon<sup>®</sup> tubing and field measurements of static and differential pressure readings were collected from each sampling point. After pressure readings were collected, a “shut-in” test was conducted on the sampling train and helium leak checks were conducted at each sampling point. The purpose of the shut-in test and helium leak check are to minimize the potential for short circuiting with ambient air during sampling. The shut-in test and leak check are described below:

- The shut-in test was conducted by connecting the flow regulator with the vacuum gauge to the Summa<sup>®</sup> canister and sealing the flow regulator with the laboratory provided brass cap. Once the sampling train was “closed”, the sample valve on the Summa<sup>®</sup> canister was opened and the reading on the vacuum gauge was recorded. The Summa<sup>®</sup> canister sample valve was then closed, and the vacuum gauge was observed to ensure no vacuum loss occurred. Because the vacuum readings remained generally the same, the shut-in tests were considered successful. As such, each sample train passed the shut-in test.
- Prior to soil gas and sub-slab vapor sampling, H&H conducted a leak check at each sample location by constructing a shroud around the sampling point, sampling fittings, and sampling connections, and flooding the air within the shroud with helium gas. Helium within the shroud was monitored using a helium gas detector. A sample was then collected from the sample tubing outside the shroud into a Tedlar bag and analyzed using the helium gas detector. Using a syringe and three-way valve, the Teflon<sup>®</sup> sample tubing was purged using the GEM while field measurements of pressure, oxygen, carbon dioxide, and methane (percent by volume and percent lower explosive limit) were concurrently collected. Note that field measurements were inadvertently not collected from soil gas monitoring point SG-1 during the initial field data collection period. The results of the leak check indicated that helium concentrations in the Tedlar bags were less than 10% of the helium concentrations measured within the shrouds. As such, each sample passed the leak test.

Based on extensive discussions with the GEM manufacturer, the “static pressure” reading reported by the GEM is collected from a pressure transducer located at the influent point where tubing from the sampling point enters the meter. The instrument is “zeroed out” prior to connection to the sampling point tubing, which effectively removes the atmospheric pressure from the reading. Therefore, the “static pressure” reported by the GEM is equal to the pressure in the sampling point minus atmospheric pressure. A positive static pressure reading reflects subsurface pressure above atmospheric, while a negative static pressure reading reflects a vacuum in the subsurface. The “differential pressure” reading reported by the GEM is collected from a pressure transducer located at the effluent point for the meter and reflects the pressure exiting the unit. The “differential pressure” reported by the GEM is typically similar to and inverse the static pressure (i.e., positive static pressure equals negative differential pressure and vice versa). In addition, it should be noted that the GEM’s estimated accuracy as reported by the manufacturer is  $\pm 0.5\%$  for methane,  $\pm 2.0$  inches of water (in H<sub>2</sub>O) for static pressure, and  $\pm 0.7$  inches of H<sub>2</sub>O for differential pressure.

Following the successful leak check, mercury vapor samples were collected from each sub-slab vapor and soil gas monitoring point using an in-line laboratory-provided sorbent tube sampler. An air sampling pump and a flow meter were used to collect the sample through the sample train at a constant rate of approximately 200 milliliters per minute for no less than one hour to achieve suitable laboratory sample detection limits. Following sample collection, the sample media was shipped under standard chain-of-custody protocols to EMSL Analytical Inc. for analysis of elemental mercury by the National Institute for Occupational Safety and Health (NIOSH) Method 6009.

After completion of the mercury sampling, sub-slab vapor and soil gas samples were collected into laboratory-supplied 1-liter batch-certified stainless steel Summa canisters connected to inline flow controllers with laboratory-calibrated vacuum gauges. Vacuum readings on the Summa canisters were checked prior to sampling to confirm no vacuum loss greater than 10% of the initial recorded lab vacuum when received in the field. The flow controllers were connected to the sample tubing at each sampling point using a brass nut and ferrule assembly to form an air-tight seal. The flow regulators were pre-set by the laboratory to regulate the intake rate to less



than approximately 200 millimeters per minute. The intake valve on each canister was fully opened to begin collection of the soil gas samples. The initial canister vacuums were approximately 24.5 to 30 inches of mercury and the final canister vacuums were approximately 5 inches of mercury at the conclusion of the sampling event, per laboratory standard operating procedures.

After sample collection, the intake valve was closed, and the regulator was disconnected from the sample canister. The canisters were placed in laboratory-supplied shipping containers, properly labeled, and shipped under standard chain-of-custody protocols to SGS North America Inc. – Dayton (SGS) for analysis of VOCs by EPA Method TO-15.

After completion of the soil vapor VOC sample collection, H&H capped the points for a minimum of at least four hours prior to the collection of a final round of methane, carbon dioxide, oxygen, and pressure measurements. Upon completion of the assessment activities, soil gas monitoring point locations were surveyed using a hand-held GPS unit. Sub-slab vapor monitoring point locations were estimated based upon referencing distances to building landmarks. At the request of the Police Department due to the planned reorganization of the interior spaces, the sub-slab gas monitoring points SSV-1 and SSV-2 were abandoned on, November 28, 2022. Following DEQ’s concurrence with the conclusions and recommendations included in this report, the soil gas monitoring points will be properly abandoned and surfaces will be repaired to generally match pre-drilling conditions.

IDW generated during the soil gas assessment activities was thin-spread on-Site in landscape islands as there was no evidence of significant impacts in the soil gas monitoring point borings. Soil gas monitoring point boring logs are provided in Appendix B.

## **7.2 Soil Gas and Sub-Slab Vapor Analytical Results**

The results of analysis of the sub-slab vapor and soil gas samples are summarized in Table 5. The subsurface gas and pressure measurements are summarized in Table 4. The laboratory analytical report and chain-of-custody record are provided in Appendix C. Copies of raw data

output obtained from the GEM and field documentation are provided in Appendix F. Sub-slab vapor and soil gas sample analytical results were compared to the July 2022 DEQ Non-Residential Vapor Intrusion Sub-slab and Exterior Soil Gas Screening Levels (SGSLs). A summary of the vapor intrusion assessment results is provided below.

### VOCs

Laboratory analytical results indicate that VOCs were detected above laboratory MDLs in each sub-slab vapor and soil gas sample; however, concentrations were below the Non-Residential SGSLs.

### Mercury

Laboratory analytical results indicate that mercury was not detected at concentrations above the laboratory MDL (<0.50 micrograms per cubic meter [ $\mu\text{g}/\text{m}^3$ ]) in sub-slab vapor or soil gas samples collected from the Site.

### Methane and Pressure Screening Results

Results of the methane gas screening activities indicate detectable concentrations of methane only in soil gas monitoring point SG-3, which is located in the central portion of the parking lot to the south of the police building. Methane detections in this monitoring point were 0.1% and 0.2% (by volume). As previously mentioned, the accuracy of the GEM is  $\pm 0.5\%$  for methane; therefore, the detections are within the accuracy range of the meter. The detections in SG-3 are also below threshold criteria in accordance with DEQ Brownfields *Threshold Criteria for Methane Site Development* (December 2020) for commercial land use. Based on the detections of methane in SG-3 below the accuracy limits of the meter which are also below the DEQ Brownfields methane criteria for commercial buildings, and the absence of detectable methane at other sub-slab vapor and soil gas locations, these detections do not indicate a significant methane concern at the Site.

The static pressure measured in the sub-slab vapor and soil gas monitoring points ranged from -0.3 to 0.24 in H<sub>2</sub>O. As previously mentioned, the accuracy of the GEM is +/- 2 in H<sub>2</sub>O for static pressure. As such, the static pressure readings are below the accuracy limits of the instrument and considered negligible.

### 7.3 DEQ Risk Calculations

The DEQ SGSLs are conservative and based on a LICR for potential carcinogenic risks of  $1.0 \times 10^{-6}$  and a non-carcinogenic HQ of 0.2 for potential non-carcinogenic risks. The DEQ and EPA acceptable risk range for potential carcinogenic risks is  $1.0 \times 10^{-4}$  to  $1.0 \times 10^{-6}$  or less and the acceptable level for non-carcinogenic risks is a HI less than 1.0.

H&H utilized the July 2022 DEQ risk calculator (based on the potential future uses at the Site) to evaluate hypothetical “worst-case” scenario calculated cumulative risks for the soil gas to indoor air vapor intrusion pathway for detected VOCs in the soil gas and sub-slab vapor samples. For the hypothetical “worst case” scenario, the highest concentration of each compound detected in any of the soil gas or sub-slab vapor samples was input into the calculator. Results of the risk calculations are summarized in Table 5 and included in Appendix D.

In summary, hypothetical worst-case DEQ Risk Calculator soil gas to indoor air risk results for a non-residential worker indicate a calculated cumulative LICR of  $1.5 \times 10^{-6}$  and a calculated cumulative HI of 0.077, which do not exceed DEQ acceptable levels. Based on soil gas and sub-slab vapor samples collected from the Site, there does not appear to be an unacceptable vapor intrusion risk to current or future Site non-residential users.

## 8.0 Quality Assurance/Quality Control Samples

Non-dedicated equipment and tools were decontaminated prior to use at each boring or sampling location or following exposure to soil, soil gas, sub-slab gas, and/or groundwater samples. Decontamination of non-dedicated equipment followed U.S. EPA Region IV guidance (LSASDPROC-205-R4) and consisted of wiping the equipment clean, a water-rinse of the equipment, washing the equipment in water and detergent (i.e., Liquinox® or Luminox®), and a final rinse with water. The process was repeated for grossly contaminated non-dedicated equipment.

For quality assurance and quality control purposes (QA/QC), and to evaluate the reproducibility of the sample results, H&H collected the following field QA/QC samples: one duplicate soil sample (HH-14); one duplicate perched water sample (MW-8); and one duplicate soil gas sample (SG-7). The duplicate samples were submitted for the same laboratory analysis as their respective parent samples. A summary of the duplicate laboratory analytical results is provided below.

- The results of duplicate analyses for soil sample HH-14 indicate low levels of VOCs and naturally-occurring levels of Site-specific COCs were detected at concentrations well below the POG, Industrial/Commercial PSRGs, and/or Site-specific BSVs (for metals). No SVOCs were detected above laboratory MDLs in either sample. A comparison of the soil parent and duplicate sample results generally indicates good analytical repeatability.
- The results of duplicate analyses for perched water sample MW-8 indicate concentrations of cobalt (2.7 µg/L for both the parent and duplicate samples) and manganese (3,610 µg/L [parent]; 3,720 µg/L [duplicate]) were detected above the 2L Standards and background levels. Others metals were detected in the parent and duplicate samples at concentrations below the 2L Standards and/or background levels. No VOCs or SVOCs were detected above laboratory MDLs in either sample. A comparison of the perched water parent and duplicate sample results generally indicates good analytical repeatability.

- The results of duplicate analyses for soil gas sample SG-7 indicate several VOCs were detected at concentrations below the Non-Residential SGSLs. A comparison of the soil gas parent and duplicate sample results generally indicates good analytical repeatability for most compounds.

One laboratory-provided trip blank sample was included for every cooler/shipment containing groundwater samples for VOC analysis. No detections were reported in the trip blank.

Laboratory QA/QC procedures were employed to ensure appropriate sample handling and analysis and to aid in the review and validation of the analytical data. QA/QC procedures were conducted in accordance with the method protocols and included regular equipment maintenance, equipment calibrations, and adherence to specific sample custody and data management procedures. Samples were analyzed in conjunction with appropriate blanks, laboratory duplicates, continuing calibration standards, surrogate standards, and matrix spiking standards in accordance with approved methodologies to monitor both instrument and analyst performance. Laboratory reporting limits for each analyte were at or below appropriate screening criteria, where possible. Additionally, H&H requested that the laboratory include estimated concentrations for compounds that were detected at levels above the laboratory method detection limit, but below the laboratory reporting limit (i.e., J flags).

The laboratory analytical data report and QA package for each group of samples submitted to and analyzed by the subcontracted laboratory are provided in an appendix to the final report. Laboratory QA data consistent with Level II documentation was requested for this project. A copy of the completed chain-of-custody record and shipping receipt was appended to the corresponding laboratory analytical report included with the final report. The conclusions of the data review are that field and laboratory data generally meet QA objectives and are usable for the intended purpose.

## 9.0 Conclusions and Recommendations

H&H has completed Brownfields assessment activities at the 828 Martin Luther King, Jr. Blvd. (a.k.a. Chapel Hill Police Department) Brownfields property located in Chapel Hill, North Carolina. The assessment activities were conducted in accordance with the DEQ Brownfields-approved Assessment Work Plan dated August 18, 2022. Brownfields assessment activities included the collection of soil, perched water and groundwater, soil gas, and sub-slab vapor samples to further evaluate potential impacts at the Site and potential risks associated with conceptual Site redevelopment plans. In addition, a receptor survey was performed to obtain information about land use, water supply, basements, underground utilities, and surface water bodies in the Site vicinity. A brief summary of the results of the Brownfields assessment activities is provided below.

- Results of soil assessment activities for the proposed stormwater pond area (HH-13 through HH-15) and existing diesel fuel AST (HH-12) indicate low levels of several VOCs were detected above laboratory MDLs in each soil sample; however, none of the detected concentrations exceed the POG or Industrial/Commercial PSRGs. In addition, no SVOCs were detected above laboratory MDLs. As expected, naturally-occurring levels of Site-specific COCs were detected at concentrations above laboratory MDLs in each soil sample; however, none of the detected concentrations exceed Site-specific BSVs and as such, are consistent with background levels.

DEQ Risk Calculator results using the data from samples HH-12 through HH-15 indicate acceptable risks for non-residential workers for the soil direct contact exposure pathway.

- Results of recent and/or historically collected geologic data, groundwater elevation data, and groundwater geochemical data indicate that there are perched water zones in the fill material and that water samples collected from shallow wells in the fill are monitoring these perched zones. Consistent with previous sampling events, elevated concentrations of metals in groundwater samples collected in August 2022 are associated with the presence of CCPs within or near perched water. There is limited or no groundwater

impact in monitoring wells that are screened in non-fill zones in the unconfined aquifer located directly below the fill (MW-11D) and shallow downgradient monitoring wells which are located downgradient of the fill area (MW-3A and MW-4A).

No VOCs or SVOCs were detected above laboratory MDLs in the on-Site monitoring wells screened in the perched water or underlying groundwater zones.

- Results of vapor intrusion assessment activities indicate no VOCs were detected at concentrations above the Non-Residential SGSLs. To further evaluate potential vapor intrusion risks for the existing and potential future Site building(s), H&H utilized the DEQ Risk Calculator to evaluate hypothetical worst-case potential vapor intrusion risks for the soil gas to indoor air pathway under a non-residential use scenario. Calculated cumulative risks for current and/or future non-residential workers are within the acceptable carcinogenic risk of less than  $1.0 \times 10^{-4}$  and less than a hazard index of 1.0. As such, there does not appear to be an unacceptable vapor intrusion risk to current or future Site non-residential users.
- Results of the methane gas screening activities indicate low (0.1% and 0.2% by volume) detections of methane in soil gas monitoring point SG-3, which is located in the central portion of the parking lot to the south of the police building. Based on detections below the accuracy limits of the meter, which are also below DEQ Brownfields' methane threshold criteria for commercial land use, and the absence of detectable methane at other sub-slab vapor and soil gas locations, these detections are not considered indicative of a significant methane concern at the Site. In addition, static pressure measured in the sub-slab vapor and soil gas monitoring points are below the accuracy limits of the instrument and considered negligible.

Based upon the results, additional assessment does not appear warranted to evaluate risks associated with proposed redevelopment activities. Impacted media or media disturbed during future redevelopment activities can be managed in accordance with a DEQ Brownfields-approved Environmental Management Plan (EMP) and/or land use restrictions as outlined in a negotiated Brownfields Agreement.

**Table 1A (Page 1 of 2)**  
**Summary of Soil Analytical Data For Metals**  
**828 Martin Luther King, Jr. Blvd.**  
**Chapel Hill, North Carolina**  
**H&H Job No. TCH-009**

Sample ID	Sample Date	Material Sampled (Soil or CCPs)	Sample Depth (ft or in bgs)	aluminum	antimony	arsenic	barium	beryllium	boron	cadmium	calcium	hexavalent chromium	trivalent chromium	total chromium	cobalt	copper	iron	lead	magnesium	manganese	mercury	molybdenum	nickel	potassium	selenium	silver	sodium	strontium	thallium	vanadium	zinc					
<b>Site-Specific BSV<sup>(1)</sup></b>				--	--	3.015	87.86	0.929	--	0.313	--	5.725	70.2	70.2	36.31	77.3	--	59.11	--	1,149	0.256	--	19.49	--	2.503	--	--	43.19	0.981*	227	230					
<b>PSRG - Protection of Groundwater<sup>(2)</sup></b>				110,000	0.90	5.8	580	63	45	3.0	NS	3.8	360,000	NS	0.90	700	150	270	NS	65	1.0	7.1	130	NS	2.1	3.4	NS	1,400	2.8	140	1,200					
<b>PSRG - Industrial/Commercial Health-Based<sup>(2)</sup></b>				230,000	93	3.0	47,000	470	47,000	20	NS	6.5	350,000	NS	70	9,300	160,000	800	NS	5,600	9.7	1,200	4,700	NS	1,200	1,200	NS	140,000	2.3	1,200	70,000					
<b>Upper Level Samples</b>																																				
S-4	04/29/13	CCPs	1 ft	23,000	ND	14	24	ND	NA	1.5	9,900	NA	NA	22	30	65	59,000	20	9,000	1,500	0.011	NA	43	680	ND	ND	150	NA	ND	21	120					
S-5	01/31/14	CCPs	0-4 ft	NA	NA	37	2,800	NA	NA	ND	NA	1.3	19.7	21	NA	NA	NA	10	NA	NA	0.30	NA	NA	NA	3.2	ND	NA	NA	NA	NA	NA					
S-6	01/31/14	CCPs	0-4 ft	NA	NA	43	3,200	NA	NA	ND	NA	2.7	19.3	22	NA	NA	NA	12	NA	NA	0.42	NA	NA	NA	6.1	ND	NA	NA	NA	NA	NA					
GP-1	02/03/14	CCPs	8-12 ft	NA	NA	3.5	86	NA	NA	ND	NA	ND	8.8	8.8	NA	NA	NA	26	NA	NA	0.083	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA					
GP-2	02/03/14	CCPs	26-28 ft	NA	NA	41	1,100	NA	NA	ND	NA	ND	19	19	NA	NA	NA	11	NA	NA	0.24	NA	NA	NA	4.0	ND	NA	NA	NA	NA	NA					
GP-3	02/03/14	CCPs	10-12 ft	NA	NA	48	1,200	NA	NA	ND	NA	0.53	22.47	23	NA	NA	NA	39	NA	NA	0.42	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA					
GP-4	02/04/14	CCPs	10-12 ft	NA	NA	59	2,900	NA	NA	ND	NA	ND	20	20	NA	NA	NA	11	NA	NA	0.51	NA	NA	NA	5.8	ND	NA	NA	NA	NA	NA					
GP-5	02/04/14	CCPs	4-6 ft	NA	NA	72	2,800	NA	NA	ND	NA	ND	19	19	NA	NA	NA	9.5	NA	NA	0.33	NA	NA	NA	2.6	ND	NA	NA	NA	NA	NA					
	04/03/19	CCPs	4-6 ft	NA	NA	95.9	2,350	5.46	NA	<0.956	NA	0.836 J	12.3	13.1	7.05	50.9	NA	NA	NA	34.7	1.2	NA	11.1	NA	12	NA	NA	325	NA	NA	NA					
GP-6	04/03/19 <sup>(3)</sup>	CCPs	4-6 ft	NA	NA	95.9	2,630	6.99	NA	<0.931	NA	0.712 J	16.2	16.9	10.3	62.5	NA	NA	NA	53.4	0.39	NA	17.1	NA	13	NA	NA	308	NA	NA	NA					
	02/04/14	CCPs	9-11 ft	NA	NA	65	850	NA	NA	ND	NA	ND	19	19	NA	NA	NA	27	NA	NA	11	NA	NA	NA	4.1	ND	NA	NA	NA	NA	NA					
GP-7	04/04/19	CCPs	9-10 ft	NA	NA	6.73	178	0.758	NA	0.118 J	NA	<1.11	10.0	10	5.18	11	NA	NA	687	0.050	NA	6.24	NA	0.88	NA	NA	21.7	NA	NA	NA	NA					
	02/04/14	CCPs	10-12 ft	NA	NA	55	1,700	NA	NA	ND	NA	ND	19	19	NA	NA	NA	11	NA	NA	0.26	NA	NA	NA	4.3	ND	NA	NA	NA	NA	NA					
GP-8	02/04/14	CCPs	11-15 ft	NA	NA	54	4,100	NA	NA	ND	NA	ND	20	20	NA	NA	NA	9.2	NA	NA	0.29	NA	NA	NA	4.5	ND	NA	NA	NA	NA	NA					
GP-11	02/04/14	CCPs	4-6 ft	NA	NA	16	450	NA	NA	ND	NA	ND	16	16	NA	NA	NA	23	NA	NA	0.35	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA					
GP-12	02/04/14	CCPs	2-4 ft	NA	NA	52	2,000	NA	NA	ND	NA	ND	19	19	NA	NA	NA	14	NA	NA	0.28	NA	NA	NA	2.1	ND	NA	NA	NA	NA	NA					
HH-1	11/03/16	Soil	0-1 ft	NA	<0.29	5.9	120	1.00	NA	<0.29	NA	0.45	20.55	21	7.9	25	NA	27	NA	350	0.052	NA	8.8	NA	0.69	NA	NA	31	<0.58	48	50					
	11/03/16 <sup>(3)</sup>	Soil	0-1 ft	NA	<0.35	3.4	110	0.79	NA	<0.35	NA	0.54	19.46	20	8.4	17	NA	18	NA	360 BH	0.067	NA	12	NA	<0.71	NA	NA	30	<0.71	41	35					
HH-2	11/03/16	Soil	0-1 ft	NA	<0.29	4.9	140	0.93	NA	<0.29	NA	0.43	13.57	14	12	21	NA	30	NA	260	0.085	NA	5.9	NA	1.0	NA	NA	25	<0.58	48	43					
HH-3	11/03/16	Soil	0-1 ft	NA	<0.33	9.9	200	1.30	NA	<0.33	NA	0.46 J	17.54	18	7.8	31	NA	24	NA	350	0.076	NA	8.9	NA	2.4	NA	NA	36	<0.65	53	100					
HH-4	11/03/16	Soil	0-1 ft	NA	<0.28	2.4	72	1.00	NA	<0.28	NA	0.50	44.5	45	16	37	NA	2.3	NA	630	<0.023	NA	33	NA	<0.56	NA	NA	42	0.60	73	70					
HH-5	11/03/16	Soil	0-1 ft	NA	<0.30	2.4	73	0.75	NA	<0.30	NA	<0.14	23	23	8.4	19	NA	9.3	NA	410	<0.025	NA	14	NA	1.2	NA	NA	23	<0.60	39	51					
MW-7	11/01/16	Soil	0-1 ft	NA	<0.30	2.6	67	0.87	NA	<0.30	NA	0.89	9.11	10	3.9	180	NA	7.6	NA	100	0.030	NA	2.9	NA	<0.59	NA	NA	6.7	<0.59	61	46					
HH-12	09/06/22	Soil	4-5 ft	NA	NA	1.6	65.6	0.72	NA	0.045 J	NA	0.583 J	10.3	10.9	13.1	26.6	NA	NA	NA	94.8	<0.0041	NA	17.1	NA	0.28 J	NA	NA	21.8	<0.044	59.3	NA					
HH-13	09/06/22	Soil	0-2 ft	NA	NA	1.0	19.8	0.37	NA	<0.030	NA	<0.280	15.4	15.4	3.9	13.8	NA	NA	NA	368	0.025	NA	4.1	NA	0.19 J	NA	NA	15.2	<0.039	32.6	NA					
HH-14	09/06/22	Soil	0-2 ft	NA	NA	2.0	51.6	0.42	NA	<0.035	NA	0.356 J	7.1	7.5	2.3	9.5	NA	NA	NA	32.9	0.041	NA	2.1	NA	0.64	NA	NA	2.5	0.096 J	22.2	NA					
	09/06/22 <sup>(3)</sup>	Soil	0-2 ft	NA	NA	1.4	38.7	0.34	NA	<0.032	NA	0.537 J	3.9	4.4	1.6	5.3	NA	NA	NA	48.3	0.016	NA	1.2	NA	0.33 J	NA	NA	2.0	0.056 J	14.7	NA					
HH-15	09/06/22	Soil	0-2 ft	NA	NA	0.76	31.0	0.27	NA	<0.031	NA	<0.313	1.6 J	1.6 J	1.6	6.6	NA	NA	NA	105	0.021	NA	1.0	NA	0.20 J	NA	NA	9.1	0.043 J	15.9	NA					
<b>Embankment Samples</b>																																				
S-7	01/31/14	CCPs	0-4 ft	NA	NA	44	2,500	NA	NA	ND	NA	1.4	27.8	29	NA	NA	NA	11	NA	NA	0.44	NA	NA	NA	4.5	ND	NA	NA	NA	NA	NA					
HH-9	04/03/19	CCPs	0-1 ft	NA	NA	3.37	131	0.398 J	NA	0.178 J	NA	<1.29	12.7	12.7	5.97	14.5	NA	NA	NA	260	0.31	NA	3.59	NA	0.722	NA	NA	33.2	NA	NA	NA					
HH-10	04/03/19	CCPs	0-1 ft	NA	NA	60.3	2,970	5.14	NA	0.162 J	NA	<1.60	13.8	13.8	9.84	51.3	NA	NA	NA	73.3	0.22	NA	17.1	NA	5.04	NA	NA	269	NA	NA	NA					
HH-11	04/03/19	CCPs	0-1 ft	NA	NA	42.5	3,260	5.9	NA	0.220 J	NA	0.467 J	18.7	19.2	13.4	55.3	NA	NA	NA	113	0.43	NA	23.5	NA	9.05	NA	NA	234	NA	NA	NA					
<b>Lower Level Samples</b>																																				
SS-7	02/18/16	Soil	2-12 in	NA	ND	3.1	84	0.60	ND	ND	NA	NA	NA	14	6.9	15	NA	13	NA	500	0.038	ND	5.9	NA	ND	ND	NA	31	ND	37	37					
HH-8	10/27/16	Soil	0-1 ft	NA	<0.30	3.6	100	1.00	NA	<0.30	NA	<0.35	19	19	12	29	NA	18	NA	570	0.036	NA	9.0	NA	<0.60	NA	NA	28	<0.60	52	54					
MW-6	11/02/16	Soil	0-1 ft	NA	<0.26	2.9	38	0.61	NA	<0.26	NA	0.21 J	9.79	10	9.5	23	NA	12	NA	570	0.082	NA	8.2	NA	1.0	NA	NA	22	0.81	31	77					
SED-3A	04/05/19	Soil	0-1 ft	NA	NA	3.45	33.9	0.418 J	NA	<0.582	NA	<1.16	17.4	17.4	16.5	6.97	NA	NA	NA	560	<0.0054	NA	5.82	NA	0.237 J	NA	NA	9.6	NA	NA	NA					
SED-5A	04/04/19	Soil	0-1 ft	NA	NA	1.25	13.5	0.156 J	NA	<0.571	NA	0.352 J	13.2	13.6	5.95	39.1	NA	NA	NA	243	0.0071	NA	4.38	NA	<0.571	NA	NA	10.9	NA	NA	NA					
SED-8	04/05/19	Drainage Pathway Soil	2-6 in	NA	NA	2.41	49.1	0.313 J	NA	0.122 J	NA	<1.25	12.0	12	7.01	14.3	NA	NA	NA	423	0.063	NA	4.66	NA	1.01	NA	NA	15.2	NA	NA	NA					
SED-9	04/05/19	Drainage Pathway Soil	2-6 in	NA	NA	1.16	33.8	0.199 J	NA	<0.660	NA	0.461 J	21.6	22.1	9.11	10.1	NA	NA	NA	431	0.013	NA	6.68	NA	<0.660	NA	NA	16.7	NA	NA	NA					
SED-10	04/05/19																																			



**Table 1A (Page 2 of 2)**  
**Summary of Soil Analytical Data For Metals**  
**828 Martin Luther King, Jr. Blvd.**  
**Chapel Hill, North Carolina**  
**H&H Job No. TCH-009**

Sample ID	Sample Date	Material Sampled (Soil or CCPs)	Sample Depth (ft or in bgs)	aluminum	antimony	arsenic	barium	beryllium	boron	cadmium	calcium	hexavalent chromium	trivalent chromium	total chromium	cobalt	copper	iron	lead	magnesium	manganese	mercury	molybdenum	nickel	potassium	selenium	silver	sodium	strontium	thallium	vanadium	zinc
<b>Site-Specific BSV<sup>(1)</sup></b>				--	--	3.015	87.86	0.929	--	0.313	--	5.725	70.2	70.2	36.31	77.3	--	59.11	--	1,149	0.256	--	19.49	--	2,503	--	--	43.19	0.981*	227	230
<b>PSRG - Protection of Groundwater<sup>(2)</sup></b>				110,000	0.90	5.8	580	63	45	3.0	NS	3.8	360,000	NS	0.90	700	150	270	NS	65	1.0	7.1	130	NS	2.1	3.4	NS	1,400	2.8	140	1,200
<b>PSRG - Industrial/Commercial Health-Based<sup>(2)</sup></b>				230,000	93	3.0	47,000	470	47,000	20	NS	6.5	350,000	NS	70	9,300	160,000	800	NS	5,600	9.7	1,200	4,700	NS	1,200	1,200	NS	140,000	2.3	1,200	70,000
<b>Background Samples</b>																															
<b>MW-5 (background)</b>	11/02/16	Soil	0-1 ft	NA	<0.30	2.1	76	0.99	NA	<0.30	NA	0.43 J	17.57	18	27	49	NA	4.0	NA	710	<0.023	NA	5.0	NA	<0.59	NA	NA	25	<0.59	190	47
	11/02/16	Soil	6-7 ft	NA	<0.27	1.4	61	0.60	NA	<0.27	NA	0.81	38.19	39	19	18	NA	0.55	NA	940	<0.020	NA	20	NA	<0.53	NA	NA	29	2.3	67	75
<b>BG-1 (background)</b>	11/03/16	Soil	0-1 ft	NA	<0.28	1.9	36	0.39	NA	<0.28	NA	0.87	17.13	18	6.3	16	NA	25	NA	310	0.033	NA	5.4	NA	1.6	NA	NA	15	<0.57	34	43
	11/03/16	Soil	2-3 ft	NA	<0.29	2.3	45	0.48	NA	<0.29	NA	<0.12	19	19	7.3	18	NA	43	NA	440	0.280	NA	6.2	NA	1.6	NA	NA	15	<0.57	35	49
<b>BG-2 (background)</b>	11/03/16	Soil	0-1 ft	NA	<0.28	1.9	45	0.50	NA	<0.28	NA	0.84	16.16	17	7.4	18	NA	32	NA	410	0.045	NA	4.9	NA	1.1	NA	NA	14	<0.56	35	44
	11/03/16	Soil	2-3 ft	NA	<0.27	1.9	52	0.53	NA	<0.27	NA	0.70	23.3	24	7.5	20	NA	26	NA	450	0.038	NA	7.9	NA	1.7	NA	NA	19	<0.55	37	45
<b>BG-3 (background)</b>	11/03/16	Soil	0-1 ft	NA	<0.30	1.7	44	0.43	NA	<0.30	NA	0.21 J	23.3	16	7.5	15	NA	25	NA	410	0.024	NA	5.1	NA	1.4	NA	NA	46	<0.60	37	40
	11/03/16	Soil	2-3 ft	NA	<0.27	2.2	56	0.54	NA	<0.27	NA	0.88	21.12	22	7.5	18	NA	29	NA	410	0.040	NA	5.2	NA	1.2	NA	NA	19	<0.53	40	46
<b>BG-4 (background)</b>	11/03/16	Soil	0-1 ft	NA	<0.29	1.7	50	0.50	NA	<0.29	NA	<0.13	19	19	9.5	16	NA	22	NA	450 BH	0.026	NA	6.0	NA	<0.59	NA	NA	16 A	<0.59	53	50
	11/03/16	Soil	2-3 ft	NA	<0.33	2.0	53	0.52	NA	0.38	NA	0.50 J	22.5	23	11	23	NA	21	NA	460 BH	0.054	NA	8.5	NA	<0.65	NA	NA	19	<0.65	51	230
<b>BG-6 (background)</b>	04/03/19	Soil	0-1 ft	NA	NA	2.05 O1	64.4	0.625	NA	0.177 J	NA	5.34	39.4	44.7	14.4	26.4	NA	NA	NA	448 J6	0.022	NA	12.8	NA	0.562 J	NA	NA	17	NA	NA	NA
	04/04/19	Soil	2-3 ft	NA	NA	2.29	66.3	0.507 J	NA	0.139 J	NA	<1.19	22.9	22.9	14.7	32.3	NA	NA	NA	467	0.032	NA	7.78	NA	0.828	NA	NA	16.8	NA	NA	NA
<b>BG-7 (background)</b>	04/03/19	Soil	0-1 ft	NA	NA	1.97	52.7	0.410 J	NA	0.136 J	NA	<1.16	19.7	20.2	18.9	36.4	NA	NA	NA	813	0.025	NA	12.8	NA	0.543 J	NA	NA	22.6	NA	NA	NA
	04/04/19	Soil	2-3 ft	NA	NA	3.08	77.9	0.430 J	NA	0.108 J	NA	<1.16	27	27	16.3	32.5	NA	NA	NA	548	0.023	NA	6.2	NA	0.502 J	NA	NA	24.3	NA	NA	NA
<b>BG-8 (background)</b>	04/03/19	Soil	0-1 ft	NA	NA	1.8	52.4	0.370 J	NA	0.0951 J	NA	<1.14	24.5	24.5	21.8	62.8	NA	NA	NA	759	0.0072	NA	9.04	NA	0.485 J	NA	NA	24.4	NA	NA	NA
	04/04/19	Soil	2-3 ft	NA	NA	1.66	47.6	0.293 J	NA	0.0918 J	NA	<1.14	21.7	21.7	23.5	60.2	NA	NA	NA	732	<0.0067	NA	7.86	NA	0.306 J	NA	NA	25.1	NA	NA	NA

**Notes:**  
Concentrations reported in milligrams per kilogram (mg/kg).  
**Yellow highlighting indicates samples collected as part of September 2022 sampling.**  
1) Site-Specific Background Screening Value (BSV) represents 95% upper threshold level (UTL) with 95% coverage calculated using EPA ProUCL 5.1.  
\*Insufficient data to calculate 95% UTL; therefore, site-specific BSV indicates 2x mean concentration with non-detect concentrations calculated as half the reporting limit.  
2) North Carolina Department of Environmental Quality (DEQ) Preliminary Soil Remediation Goals (PSRGs) (July 2022)  
3) Duplicate sample results.  
Concentrations reported in milligrams per kilogram (mg/kg).  
**Bold** indicates concentration above or equal to Protection of Groundwater PSRG and site-specific BSV.  
**Shading** indicates concentration above or equal to Industrial/Commercial PSRG and site-specific BSV.  
CCPs = Coal Combustion Products  
ND = Not Detected; NA = Not Analyzed; NS = Not Specified; NC = Not Calculated  
-- = Statistical test not applicable to data set  
J = Detected above method detection limit but below laboratory reporting limit; therefore, result is an estimated concentration.  
O1 = Analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.  
J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.  
BH = Method blank greater than one-half laboratory reporting limit, but sample concentration greater than 10x the method blank.  
A = Continuing Calibration Verification standard recovery (82%) is less than the lower control limit (90%). Result has possible low bias.  
Excavated sample locations are not shown in table.

**Analytical Methods**  
Metals by EPA Method 6010C or 6020B  
Hexavalent Chromium by EPA Method 7196 or 7199 (Phase II RI, April 2019 Data Gap, and September 2022 Samples)  
Mercury by EPA Method 7471B

**Table 1B (Page 1 of 1)**  
**Summary of Soil Analytical Data for VOCs and SVOCs**  
**828 Martin Luther King, Jr. Blvd.**  
**Chapel Hill, North Carolina**  
**H&H Job No. TCH-009**

Sample ID	Sample Date	Material Sampled (Soil or CCPs)	Sample Depth (ft bgs)	VOCs (EPA Method 8260D)						SVOCs (EPA Method 8270E)
				acetone	chlorobenzene	ethylbenzene	p-isopropyltoluene	toluene	xylenes (total)	
<b>PSRG - Protection of Groundwater<sup>(1)</sup></b>				25	0.68	13	NS	8.3	9.9	-
<b>PSRG - Industrial/Commercial Health-Based<sup>(1)</sup></b>				210,000	280	27	NS	9,700	530	-
<b>HH-12</b>	09/06/22	Soil	4-5 ft	<0.045	0.0037 J	0.0045 J	<0.0034	0.0063 J	0.018	ALL BDL
<b>HH-13</b>	09/06/22	Soil	0-2 ft	<0.040	0.0036 J	0.0047 J	<0.0030	0.0063	0.017	ALL BDL
<b>HH-14</b>	09/06/22	Soil	0-2 ft	0.067 J	0.0042 J	<0.0035	0.0065 J	0.011	0.017	ALL BDL
	09/06/22 <sup>(2)</sup>	Soil	0-2 ft	<0.053	0.0047 J	0.0057 J	<0.0040	0.0083	0.021	ALL BDL
<b>HH-15</b>	09/06/22	Soil	0-2 ft	0.056 J	0.0044 J	0.0056 J	<0.0038	0.0072 J	0.019	ALL BDL

**Notes:**

Concentrations reported in milligrams per kilogram (mg/kg).

1) North Carolina Department of Environmental Quality (DEQ) Preliminary Soil Remediation Goals (PSRGs) (July 2022)

2) Duplicate sample results.

CCPs = Coal Combustion Products

NS = Not Specified; BDL = Below Detection Limit

ft bgs = feet below ground surface

J = Detected above method detection limit but below laboratory reporting limit; therefore, result is a laboratory estimated concentration.

**Analytical Methods**

Volatile Organic Compounds (VOCs) by EPA Method 8260D

Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270E

**Table 2 (Page 1 of 1)**  
**Summary of Well Construction Details and Depth to Water Measurements**  
**828 Martin Luther King, Jr. Blvd.**  
**Chapel Hill, North Carolina**  
**H&H Job No. TCH-009**

Well ID	Permanent or Temporary	Date Installed	Date Abandoned	Drilling Method	Well Material	Screen Slot Size (in)	Total Depth (ft bls)	Screened Interval (ft bls)	TOC Elevation (ft)	November 9, 2016		April 3, 2019		September 26, 2019		February 12, 2020		August 29, 2022	
										Depth to Water (ft bls)	Elevation (ft)	Depth to Water (ft bls)	Elevation (ft)	Depth to Water (ft bls)	Elevation (ft)	Depth to Water (ft bls)	Elevation (ft)	Depth to Water (ft bls)	Elevation (ft)
MW-1	Permanent	4/29/2013	N/A	DPT	2" PVC	0.01	40	30-40	346.12	35.48	310.64	30.90	315.22	35.67	310.45	35.22	310.90	37.65	308.47
MW-1A	Permanent	9/24/2019	N/A	Sonic	2" PVC	0.01	40	25-40	345.96	--	--	--	--	31.43	314.53	30.27	315.69	32.29	313.67
MW-2	Temporary	6/20/2013	6/20/2013	HA	Unknown	Unknown	8	Unknown	--	--	--	--	--	--	--	--	--	--	--
MW-3	Permanent	1/27/2014	1/7/2015	Auger	2" PVC	0.01	11	6-11	--	--	--	--	--	--	--	--	--	--	--
MW-4	Permanent	1/27/2014	1/6/2015	Auger	2" PVC	0.01	9.2	4.2-9.2	--	--	--	--	--	--	--	--	--	--	--
MW-3A	Permanent	5/12/2015	N/A	Air Rotary	2" PVC	0.01	16	1-16	298.10	5.91	292.19	2.79	295.31	7.14	290.96	1.34	296.76	4.83	293.27
MW-4A	Permanent	5/14/2015	N/A	Air Rotary	2" PVC	0.01	19	4-19	298.00	6.72	291.28	3.20	294.80	7.83	290.17	2.22	295.78	6.48	291.52
MW-5	Permanent	11/2/2016	N/A	Air Rotary	2" PVC	0.01	27.5	17.5 - 27.5	369.33	9.27	360.06	7.03	362.30	10.24	359.09	9.67	359.66	9.83	359.50
MW-6	Permanent	11/2/2016	N/A	HSA	2" PVC	0.01	17.5	7.5 - 17.5	315.39	9.92	305.47	7.42	307.97	10.54	304.85	6.87	308.52	8.21	307.18
MW-7	Permanent	11/2/2016	N/A	Air Rotary	2" PVC	0.01	69.5	59.5 - 69.5	339.54	46.97	292.57	43.58	295.96	47.05	292.49	45.09	294.45	47.64	291.90
MW-8	Permanent	9/24/2019	N/A	Sonic	2" PVC	0.01	44.5	29.5-44.5	343.89	--	--	--	--	40.16	303.73	38.21	305.68	40.73	303.16
MW-9	Permanent	9/24/2019	N/A	Sonic	2" PVC	0.01	45.0	30-45	339.04	--	--	--	--	26.92	312.12	25.47	313.57	28.32	310.72
TMW-10	Temporary	9/24/2019	9/24/2019	Sonic	2" PVC	0.01	40.0	25-40	349.35	--	--	--	--	27.23*	322.12*	--	--	--	--
MW-11D	Permanent	2/11/2020	N/A	HSA / Air Rotary	2" PVC	0.01	56.0	46-56	339.29	--	--	--	--	--	--	31.85	307.44	33.96	305.33

**Notes:**

MW-1, MW-3A, MW-4A, MW-5, MW-6, and MW-7 were surveyed by CE Group on December 8, 2016.

MW-1A, MW-8, MW-9, and TMW-10 were surveyed by H&H on September 26, 2019.

MW-11D was surveyed by H&H on March 3, 2020.

ft = feet; bls = below land surface; in = inches

DPT = Direct Push Technology; HA = Hand Auger; HSA = Hollow Stem Auger

TOC = Top of Casing; -- = Not Specified; N/A = Not Applicable

\* = Depth to water gauged on September 24, 2019.

Table 3 (Page 1 of 1)  
 Summary of Perched Water and Groundwater Analytical Data  
 828 Martin Luther King, Jr. Blvd.  
 Chapel Hill, North Carolina  
 H&H Job No. TCH-009

Monitoring Well ID	Sample Date	turbidity	alkalinity	aluminum	antimony*	arsenic	barium	beryllium	boron	cadmium	calcium	hexavalent chromium	trivalent chromium <sup>b</sup>	Total chromium	cobalt <sup>c</sup>	copper	iron	lead	lithium	magnesium	manganese	mercury	molybdenum	nickel	potassium	selenium	silver	sodium	strontium	thallium*	vanadium*	zinc	TDS	chloride	fluoride	nitrate	sulfate	VOCs	SVOCs			
2L Standard		NS	NS	NS	1	10	700	4	700	2	NS	NS	NS	10	1	1,000	300	15	NS	NS	50	1	NS	100	NS	20	20	NS	NS	2	7	1,000	500,000	250,000	2,000	10,000	250,000	--	--			
MW-5 (Background)	11/9/2016	3.8	NA	NA	<0.5	<10	51	<2.0	NA	<1.0	NA	NA	NA	<5.0	0.27 J	<10	NA	<5.0	NA	NA	580	<0.2	NA	<10	NA	23	NA	NA	190	<2.5	0.39 J	<30	NA	NA	NA	NA	NA	NA	NA	NA		
	4/3/2017	8.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.8	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	8/30/2022	7.30	NA	NA	<0.20	0.25 J	80.2	<0.10	<50.0	<0.20	NA	<0.10	NA	<1.0	0.49 J	<2.0	NA	NA	2.0 J	NA	614	<0.20	0.18 J	<1.0	NA	<2.0	NA	NA	273	<0.050	<0.25	<10.0	482,000	89,000	100	<100	43,900	All BDL	All BDL			
MW-1	5/3/2013	NA	NA	5,600	5.4	85	1,100	1.6	NA	0.17	110,000	NA	NA	15	15	25	6,500	5.8	NA	25,000	7,600	ND	NA	12	7,600	2.5	ND	34,000	NA	1.0	38	52	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/18/2016	NS	NA	NA	ND	67	1,300	11.0	ND	ND	NA	NA	NA	100	78	170	NA	36	NA	NA	9,600	0.26	ND	58	NA	ND	ND	NA	2,900	ND	260	330	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/18/2016 <sup>4</sup>	NS	NA	NA	ND	52	1,100	8.8	ND	ND	NA	NA	NA	86	61	130	NA	29	NA	NA	9,000	0.21	ND	46	NA	ND	ND	NA	2,700	ND	200	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	11/10/2016	475.0	NA	NA	<0.5	19	470	4.1	NA	0.15 J	NA	NA	NA	31	32	57	NA	10	NA	NA	8,600	<0.2	NA	21	NA	23	NA	NA	2,200	<2.5	92	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	11/10/2016 <sup>4</sup>	NA	NA	NA	<0.5	<10	160	0.53 J	NA	<1.0	NA	NA	NA	<5.0	6.0	<10	NA	<5.0	NA	NA	8,000	<0.2	NA	2.3 J	NA	<20	NA	NA	2,100	<2.5	1.2 J	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-1A	9/26/2019	6.63	NA	NA	NA	10	1,040	<0.50	NA	<0.40	NA	NA	NA	<2.5	1.2	<2.5	NA	NA	NA	2,420	<0.20	NA	0.82 J	NA	<2.5	NA	NA	6,360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	8/31/2022	9.01	NA	NA	<0.20	37.0	852	<0.10	332	<0.20	NA	<0.50	0.97	0.97 J	0.40 J	<2.0	NA	NA	110	NA	1,380	0.14 J	0.79 J	<1.0	NA	0.12 J	NA	2,500	<0.050	1.7	<10.0	774,000	74,000	210	<100	55,000	All BDL	All BDL				
MW-2	6/20/2013 <sup>1</sup>	NA	NA	16,000	0.61	8.3	1,100	5.5	NA	0.93	260,000	NA	NA	8.4	23	1,200	13,000	27	NA	47,000	1,200	0.18	NA	70	42,000	18	0.27	52,000	NA	0.48	71	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-3	2/5/2014	NA	NA	NA	NA	ND	160	NA	NA	ND	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	2/5/2014 <sup>2</sup>	NA	NA	NA	NA	ND	250	NA	NA	ND	NA	ND	NA	24	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	8/15/2014 <sup>3</sup>	1,500	NA	NA	NA	51	830	NA	NA	ND	NA	30	NA	78	NA	NA	NA	30	NA	NA	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	8/20/2014 <sup>4</sup>	13.0	NA	NA	NA	ND	220	NA	NA	ND	NA	23	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-3A	7/21/2015	5.7	NA	NA	NA	ND	67	NA	520	ND	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/17/2016	1.3	NA	NA	ND	ND	89	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	NA	NA	ND	ND	ND	NA	23	ND	NA	2,400	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/17/2016 <sup>2</sup>	1.3	NA	NA	ND	ND	80	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	NA	NA	23	ND	ND	ND	NA	26	ND	NA	2,100	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	11/9/2016	1.2	NA	NA	<0.5	<10	53	<2.0	NA	<1.0	NA	NA	NA	<5.0	<0.11	<10	NA	<5.0	NA	NA	14	<0.2	NA	<10	NA	50	NA	NA	2,400	5.4 J	0.94 J	12 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	11/9/2016 <sup>2</sup>	1.2	NA	NA	<0.5	<10	53	<2.0	NA	<1.0	NA	NA	NA	<5.0	<0.11	<10	NA	<5.0	NA	NA	15	<0.2	NA	<10	NA	52	NA	NA	2,400	5.3 J	0.95 J	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/4/2019	0.00	NA	NA	NA	0.15	68.2	<0.10	NA	<0.080	NA	NA	NA	<0.50	0.21	0.55	NA	NA	NA	NA	5.8	<0.20	NA	0.50 J	NA	34.2	NA	NA	2,950	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
8/30/2022	2.52	NA	NA	<0.20	0.38 J	67.5	<0.10	625	<0.20	NA	<0.10	NA	<1.0	0.38 J	<2.0	NA	NA	20.3	NA	664	<0.20	0.83 J	0.77 J	NA	7.0	NA	NA	2,530	<0.050	2.5	<10.0	952,000	42,300	130	<100	290,000	All BDL	All BDL				
MW-4	2/5/2014	NA	NA	NA	NA	140	6,500	NA	NA	1.7	NA	ND	NA	930	NA	NA	NA	250	NA	NA	NA	1.4	NA	NA	NA	99	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	8/20/2014 <sup>5</sup>	<10	NA	NA	NA	ND	75	NA	NA	ND	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
MW-4A	7/21/2015	24.7	NA	NA	NA	ND	64	NA	ND	ND	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/21/2015 <sup>4</sup>	24.7	NA	NA	NA	ND	61	NA	ND	ND	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/18/2016	189.0	NA	NA	ND	ND	26	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	7.8	NA	NA	49	ND	ND	ND	NA	ND	ND	NA	110	ND	ND	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/18/2016 <sup>4</sup>	189.0	NA	NA	ND	ND	33	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	8.4	NA	NA	41	ND	ND	ND	NA	ND	ND	NA	78	ND	ND	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	11/9/2016	4.8	NA	NA	<0.5	<10	36	<2.0	NA	<1.0	NA	NA	NA	1.2 J	<0.11	<10	NA	<5.0	NA	NA	140	<0.2	NA	<10	NA	7.2 J	NA	NA	170	<2.5	<0.15	17 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/4/2019	9.43	NA	NA	NA	<0.10	22.5	0.070 J	NA	<0.080	NA	NA	NA	<0.50	0.063 J	0.63	NA	NA	NA	NA	6.0	<0.20	NA	1.5	NA	0.82	NA	NA	73	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
8/31/2022	8.55	NA	NA	<0.20	0.18 J	60.6	<0.10	89.7	<0.20	NA	0.303	0.217	0.52 J	<0.050	<2.0	NA	NA	0.58 J	NA	102	<0.20	0.21 J	0.90 J	NA	0.081 J	NA	NA	393	<0.050	<0.25	<10.0	294,000	21,800	97.0 J	<100	83,600	All BDL	All BDL				
MW-6	11/9/2016	2.5	NA	NA	<0.5	<10	340	<2.0	NA	<1.0	NA	NA	NA	29	<0.11	1.9 J	NA	<5.0	NA	NA	2,500	<0.2	NA	22	NA	20	NA	NA	690	<2.5	1.2 J	<30	NA	NA	NA	NA	NA	NA	NA	NA		
	4/3/2017	7.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.8	NA	<10.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
	4/4/2019	4.48	NA	NA	NA	0.14	283	<0.10	NA	<0.080	NA	NA	NA	<0.50	0.33	<0.50	NA	NA	NA	2,210	<0.20	NA	0.20 J	NA	0.12 J	NA	NA	752	NA	NA	NA</											

**Table 4 (Page 1 of 1)**  
**Summary of Perched Water and Groundwater Geochemical Parameters**  
**828 Martin Luther King, Jr. Blvd.**  
**Chapel Hill, North Carolina**  
**H&H Job No. TCH-009**

Monitoring Well ID	Sample Date	DO (mg/L)	Temperature (°C)	Conductivity (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
MW-5 (background)	11/9/2016	0.27	20.30	569	6.96	39.2	3.76
	4/3/2017	0.21	17.80	750	6.98	-280.4	8.19
	8/30/2022	0.69	22.20	790	6.97	-16.4	7.30
MW-1	5/3/2013	NS	NS	NS	NS	NS	NA
	2/18/2016	NS	NS	NS	NS	NS	NS
	11/10/2016	6.87	17.13	767	6.89	79.0	475
	4/3/2019	1.35	17.90	1,269	6.03	-36.0	7.76
MW-1A	9/29/2019	0.11	20.90	1,082	6.15	-17.7	6.63
	8/31/2022	1.27	20.50	1,275	6.72	43.9	9.01
MW-2	6/20/2013	NS	NS	NS	NS	NS	NA
MW-3	2/5/2014	NS	NS	NS	NS	NS	NA
	8/15/2014	NS	NS	NS	NS	NS	1,500
	8/20/2014	NS	NS	NS	NS	NS	13
MW-3A	7/21/2015	NA	15.80	2,321	6.50	NA	5.7
	2/17/2016	NS	NS	NS	NS	NS	1.3
	11/9/2016	2.51	18.14	1,231	6.63	288.7	1.24
	4/4/2019	0.14	12.80	1,536	6.40	273.5	0
	8/30/2022	0.24	23.50	1,325	6.52	53.2	2.52
MW-4	2/5/2014	NS	NS	NS	NS	NS	NA
	8/20/2014	NS	NS	NS	NS	NS	<10
MW-4A	7/21/2015	NA	15.64	831	6.25	NA	24.7
	2/18/2016	NS	NS	NS	NS	NS	189
	11/9/2016	1.41	16.91	241	5.43	300.5	4.83
	4/4/2019	2.15	13.30	134	5.11	277.7	9.43
	8/31/2022	0.40	19.60	432	5.90	61.5	8.55
MW-6	11/9/2016	0.61	20.51	607	6.19	12.2	2.54
	4/3/2017	0.23	16.00	452	6.10	-270.0	7.64
	4/4/2019	0.10	13.80	786	6.30	-23.3	4.48
	8/30/2022	0.32	21.80	538	6.38	-30.4	1.03
MW-7	11/14/2016	1.79	15.66	112	5.28	61.2	8.92
	4/3/2019	1.35	15.10	107	5.40	214.9	8.95
	8/31/2022	2.59	17.80	108	5.95	94.0	9.79
MW-8	9/26/2019	0.40	21.30	632	5.77	6.6	7.95
	8/31/2022	1.08	21.80	669	6.31	-11.6	4.13
MW-9	9/26/2019	0.58	22.04	885	6.50	-49.1	1.74
	2/12/2020	0.22	18.40	858	6.83	-102.3	1.1
	8/31/2022	0.28	22.00	906	6.68	-64.3	0.11
MW-11D	2/13/2020	2.08	18.90	984	9.68	15.9	8.59
	8/30/2022	5.84	21.10	709	7.76	-11.4	3.61

**Notes**

Yellow highlighting indicates samples collected as part of August 2022 groundwater sampling

NA = Not Analyzed; NS = Not Specified

**Table 5 (Page 1 of 1)**  
**Summary of Sub-Slab Vapor and Soil Gas Analytical Data**  
**828 Martin Luther King, Jr. Blvd.**  
**Chapel Hill, North Carolina**  
**H&H Job No. TCH-009**

Sample Location	Screening Criteria	Conceptual Commercial/Office Space		Conceptual Parking Garage		Conceptual Commercial/Office Space				Existing Police Department Building		
Sample ID	Non-Residential SGSLs <sup>(1)</sup>	SG-1	SG-2	SG-3	SG-4	SG-5	SG-6	SG-7/SG-DUP		SSV-1	SSV-2	
Sample Date		9/2/2022	9/1/2022	9/1/2022	9/1/2022	9/2/2022	9/1/2022	9/1/2022	9/1/2022	9/2/2022	9/2/2022	
Sample Type		Exterior Soil Gas								Interior Sub-Slab Gas		
Units		µg/m <sup>3</sup>										
<b>VOCs (TO-15)</b>												
1,1,1-Trichloroethane	440,000	<0.82	<0.82	<0.82	<0.82	212	<0.82	<0.82	<0.82	<0.82	<0.82	<0.82
1,1-Dichloroethane	770	<0.93	<0.93	<0.93	<0.93	46.5	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93
1,1-Dichloroethylene	18,000	<0.95	<0.95	<0.95	<0.95	6.7	<0.95	<0.95	<0.95	<0.95	<0.95	<0.95
1,2,4-Trimethylbenzene	5300	2.5 J	3.0 J	6.9	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	2.6 J
1,2-Dichloroethane	47	<1.1	<1.1	<1.1	<1.1	6.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
1,3,5-Trimethylbenzene	5,300	<1.6	<1.6	2.7 J	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
2-Hexanone	2,600	<2.4	<2.4	9.0	5.7	<2.4	<2.4	5.7	<2.4	7.8	<2.4	<2.4
4-Ethyltoluene	NE	<1.9	<1.9	2.1 J	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
Acetone	NE	48.9	14	152	23	14	17	18	35.4	207	19	
Benzene	160	2.0 J	<0.80	3.1	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	2.3 J
Bromodichloromethane	33	<0.80	<0.80	<0.80	<0.80	2.8 J	8.0	<0.80	<0.80	<0.80	<0.80	<0.80
Bromomethane	440	<1.1	<1.1	3.0 J	<1.1	<1.1	<1.1	2.1 J	<1.1	<1.1	<1.1	<1.1
Carbon disulfide	61,000	2.1 J	1.7 J	124	<0.56	2.4 J	5.3	4.4	3.7	<0.56	<0.56	<0.56
Carbon tetrachloride	200	<1.0	<1.0	<1.0	<1.0	3.5 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane (Ethyl Chloride)	350,000	<0.71	<0.71	<0.71	<0.71	1.0 J	<0.71	<0.71	<0.71	<0.71	<0.71	<0.71
Chloroform	53	<0.73	<0.73	13	<0.73	25	45	13	11	<0.73	<0.73	<0.73
Chloromethane	7,900	1.3 J	<0.74	1.4 J	<0.74	<0.74	0.83 J	<0.74	1.8	<0.74	<0.74	<0.74
cis-1,2-Dichloroethene	NE	<1.2	<1.2	4.4	2.4 J	347	1.5 J	<1.2	<1.2	<1.2	<1.2	<1.2
Cyclohexane	530,000	18	33	24	17	8.3	26	10	10	13	6.9	
Dichlorodifluoromethane	8,800	2.6 J	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	2.2 J	2.0 J	
Ethyl Acetate	6,100	525	25	5.4	5.4	124	9.0	4.0	2.7 J	10	114	
Ethylbenzene	490	<1.0	1.7 J	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.7
Heptane	35,000	<1.5	<1.5	5.7	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Hexane	61,000	<1.6	<1.6	12	<1.6	<1.6	4.6	<1.6	<1.6	<1.6	<1.6	<1.6
Isopropanol	18,000	<1.4	108	22	26.1	130	118	45	30	89	226	
m,p-Xylene	8,800	2.9 J	6.1	37	<2.4	<2.4	3.3 J	2.8 J	<2.4	<2.4	13	
Methyl ethyl ketone	440,000	6.5	2.4	36	4.1	1.3 J	4.4	3.8	9.1	33	2.0 J	
Methyl Isobutyl Ketone	260,000	<1.2	<1.2	2.7 J	<1.2	<1.2	2.9 J	<1.2	<1.2	25	<1.2	
Methylene chloride	53,000	5.9	4.5	4.9	3.5	10	<0.76	<0.76	<0.76	<0.76	<0.76	
o-Xylene	8,800	<1.3	3.3 J	9.6	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	3.3 J	
Propylene	260,000	3.3 J	2.2 J	222	2.6 J	1.7 J	3.8	2.1 J	2.4 J	<0.98	<0.98	
Styrene	88,000	<2.0	<2.0	2.2 J	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Tetrachloroethylene	3,500	1.3	4.1	7.5	1.1	7.5	81.4	5.3	6.4	<0.38	<0.38	
Tetrahydrofuran	180,000	2.9	1.8 J	2.9	<1.1	2.9	<1.1	<1.1	<1.1	<1.1	<1.1	
Toluene	440,000	12	5.3	124	<0.87	3.5	5.7	2.4 J	2.4 J	<0.87	6.4	
Trichloroethylene	180	7.0	19	39	11	7.0	2.1	1.3	<0.41	<0.41	<0.41	
Trichlorofluoromethane	NE	3.0 J	3.1 J	3.0 J	2.5 J	2.5 J	<0.79	<0.79	<0.79	<0.79	<0.79	
Vinyl Acetate	18,000	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	4.6	<1.6	<1.6	
Vinyl Chloride	280	<0.72	<0.72	<0.72	<0.72	5.1	<0.72	<0.72	<0.72	<0.72	<0.72	
Xylenes (total)	8,800	2.9 J	9.1	46.9	<1.3	<1.3	3.3 J	2.8 J	<1.3	<1.3	16	
<b>Mercury (NIOSH 6009)</b>												
Mercury	26	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
<b>Risk Evaluation (Soil Gas to Indoor Air)<sup>(2)</sup></b>												
Non-Residential Carcinogenic Risk	1.0E-04	1.5E-06										
Non-Residential Hazard Index	1.0	0.077										

**Notes:**

- 1) North Carolina Department of Environmental Quality (DEQ) Division of Waste Management (DWM) Vapor Intrusion Sub-Slab & Exterior Soil Gas Screening Levels (SGSLs) dated July 2022.
  - 2) Risk evaluation performed using the highest soil gas contaminant concentrations observed site-wide, which were then entered into the July 2022 DEQ Risk Calculator for determination of hypothetical "worst case" cumulative carcinogenic risk and cumulative hazard index for the non-residential soil gas to indoor air vapor intrusion risk pathway.
- Concentrations are reported in micrograms per cubic meter (µg/m<sup>3</sup>).  
Compound concentrations are reported to the laboratory method detection limits.  
Laboratory analytical method is shown in parentheses.  
Only compounds detected in at least one sample are shown in the table above.  
VOCs = volatile organic compounds; NE = not established  
J = Compound was detected above the laboratory method detection limit, but below the laboratory reporting limit resulting in a laboratory estimated concentration.

**Table 6 (Page 1 of 1)**  
**Summary of Soil Gas and Other Gases Screening Data for Methane**  
**828 Martin Luther King, Jr. Blvd.**  
**Chapel Hill, North Carolina**  
**H&H Job No. TCH-009**

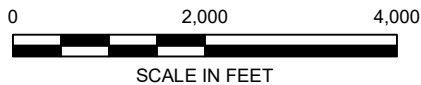
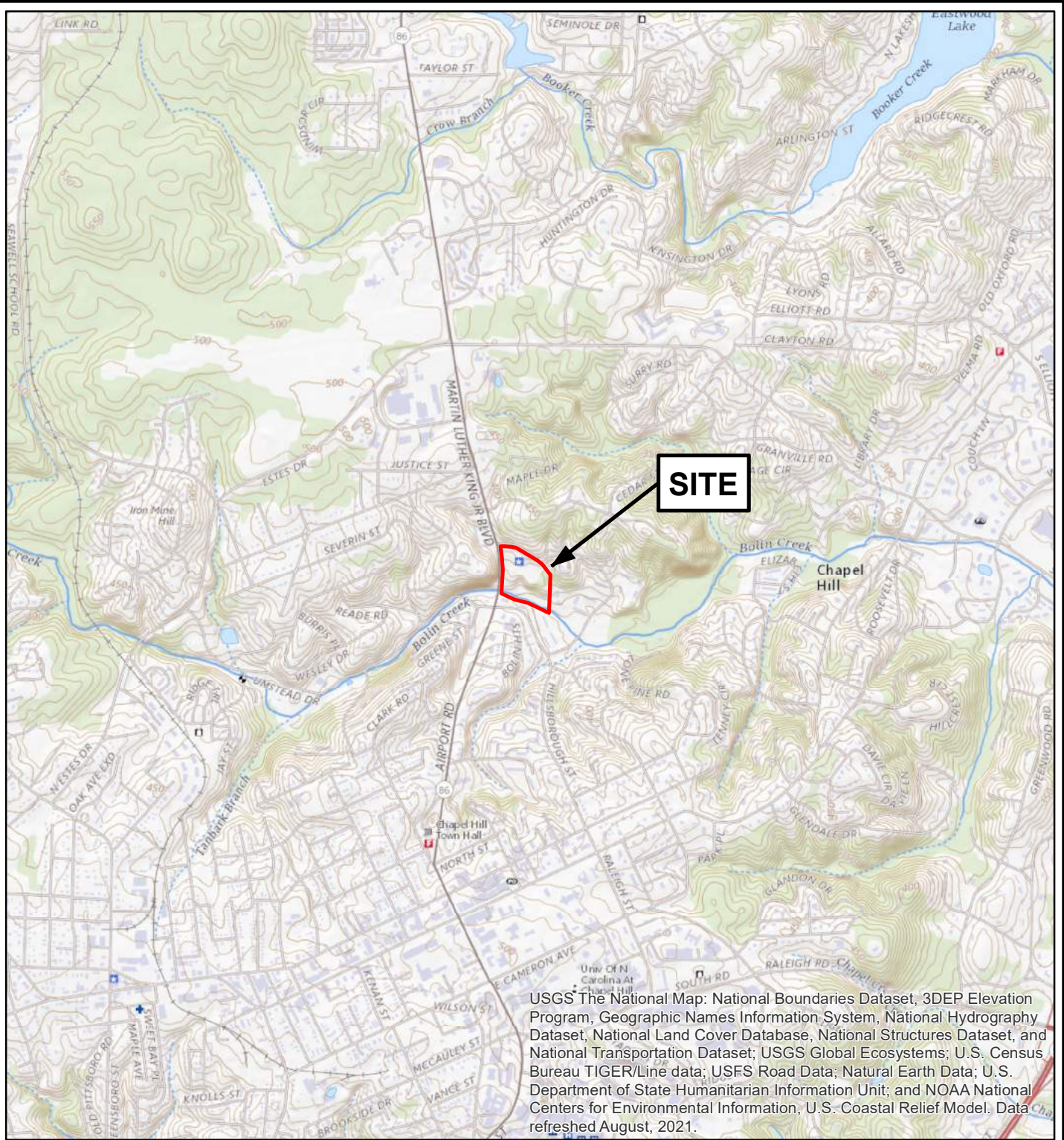
Sample ID	Depth (ft bgs)	Sample Date	Sample Time		O <sub>2</sub> (%)	CO <sub>2</sub> (%)	CO (ppm)	H <sub>2</sub> S (ppm)	Methane		Pressure		
			Pressure	Landfill Gas					%	% LEL	Barometric (in Hg)	Adjusted Static (in H <sub>2</sub> O)	Adjusted Differential (in H <sub>2</sub> O)
SG-1	5	9/2/2022	11:04	11:15	15.9	5.4	0	0	0.0	0	29.81	0.04	0.018
SG-2	5	9/1/2022	12:04	12:21	19.4	1.7	0	0	0.0	0	29.80	0.00	-0.001
	5	9/2/2022	10:32	10:34	20.3	1.9	0	0	0.0	0	29.80	0.03	0.006
SG-3	5	9/1/2022	13:38	13:47	15.3	5.6	11	0	0.2	4	29.74	0.02	0.027
	5	9/2/2022	10:41	11:01	17.5	4.0	2	0	0.1	2	29.81	0.01	0.003
SG-4	5	9/1/2022	16:32	16:38	19.1	1.8	0	0	0.0	0	29.74	0.01	0.003
	5	9/2/2022	11:29	11:31	17.5	2.8	1	0	0.0	0	29.79	0.07	0.030
SG-5	5	9/2/2022	8:07	8:18	17.5	4.0	1	0	Error in GEM 5000. Required recalibration		29.61	-0.30	0.171
	5	9/6/2022	12:05	12:07					0.0	0			
SG-6	5	9/1/2022	15:48	16:00	15.6	5.0	0	0	0.0	0	29.72	0.02	0.005
	5	9/2/2022	11:41	11:43	12.3	7.8	1	0	0.0	0	29.84	-0.03	0.007
SG-7	5	9/1/2022	14:44	14:57	16.0	4.5	0	0	0.0	0	29.75	0.06	0.032
	5	9/2/2022	11:47	11:48	16.0	5.3	1	0	0.0	0	29.83	-0.01	0.003
SSV-1	0.5	9/2/2022	9:18	9:30	19.6	0.0	0	0	0.0	0	29.80	0.07	0.021
	0.5	9/6/2022	12:13	12:15	20.6	0.0	0	0	0.0	0	29.62	0.20	-0.215
SSV-2	0.5	9/2/2022	9:50	9:58	21.5	0.1	0	0	0.0	0	29.81	-0.04	-0.010
	0.5	9/6/2022	12:17	12:19	20.6	0.2	1	0	0.0	0	29.62	-0.01	0.005

**Notes:**


Measurements were collected by H&H using a calibrated Landtec GEM 5000 (GEM or unit).

The static pressure transducer on the GEM is located at the point where tubing from the sampling point enters the unit. The unit is zeroed out to atmospheric pressure before the tubing from the sampling point is connected. Therefore, the adjusted static pressure as reported by the GEM is the pressure in the sampling point minus atmospheric pressure. A positive value indicates subsurface pressure greater than atmospheric pressure. The differential pressure transducer on the GEM is located at the effluent port. The adjusted differential pressure measurement on the GEM is typically similar to and inverse the static pressure measurement.

O<sub>2</sub> = Oxygen; CO<sub>2</sub> = Carbon Dioxide; CO = Carbon Monoxide; H<sub>2</sub>S = Hydrogen Sulfide  
 % = Percent by volume in air; ppm = parts per million in air; in Hg = inches of mercury; in H<sub>2</sub>O = inches of water  
 ft bgs = feet below ground surface

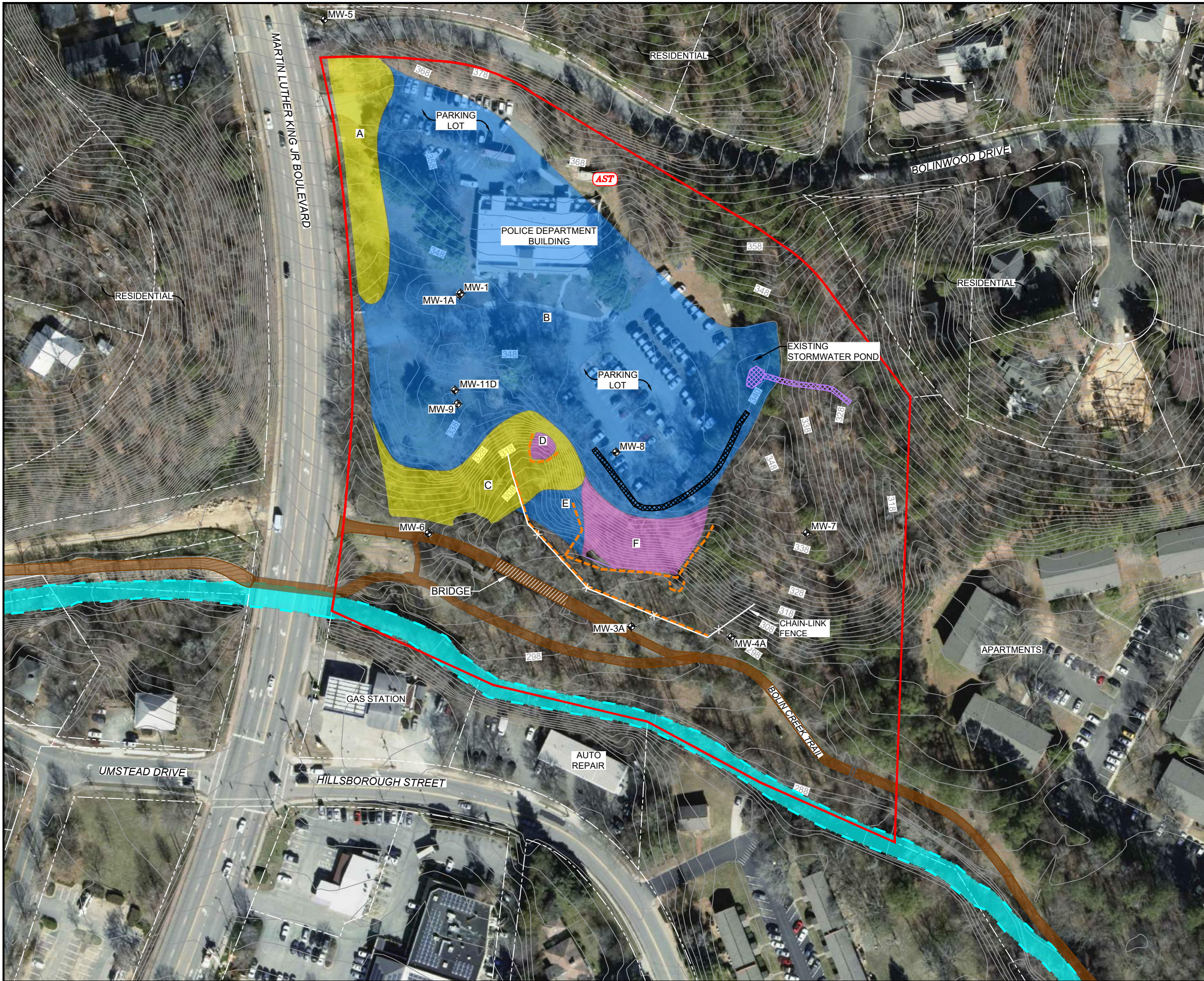


U.S.G.S. QUADRANGLE MAP  
**CHAPEL HILL, NORTH CAROLINA 2022**  
 QUADRANGLE  
 7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE		<b>SITE LOCATION MAP</b>	
PROJECT		CHAPEL HILL POLICE DEPARTMENT 828 MARTIN LUTHER KING JR. BOULEVARD CHAPEL HILL, NORTH CAROLINA	
		3921 Sunset Ridge Road, Suite 301 Raleigh, North Carolina 27607 919-847-4241 (p) 919-847-4261 (f) License # C-1269 / # C-245 Geology	
DATE: 10-31-22		REVISION NO: 0	
JOB NO: TCH-009		FIGURE NO: 1	



S:\AA-Master Projects\Town of Chapel Hill (TCH)\TCH-009 - Police Station - Remedial Services\Brownfields Documents\Brownfields Assessment Report\Figures\TCH-009 2022\03-FIGs.dwg, FIG 2, 1/14/2022 11:00:01 AM, shaynes



**LEGEND**

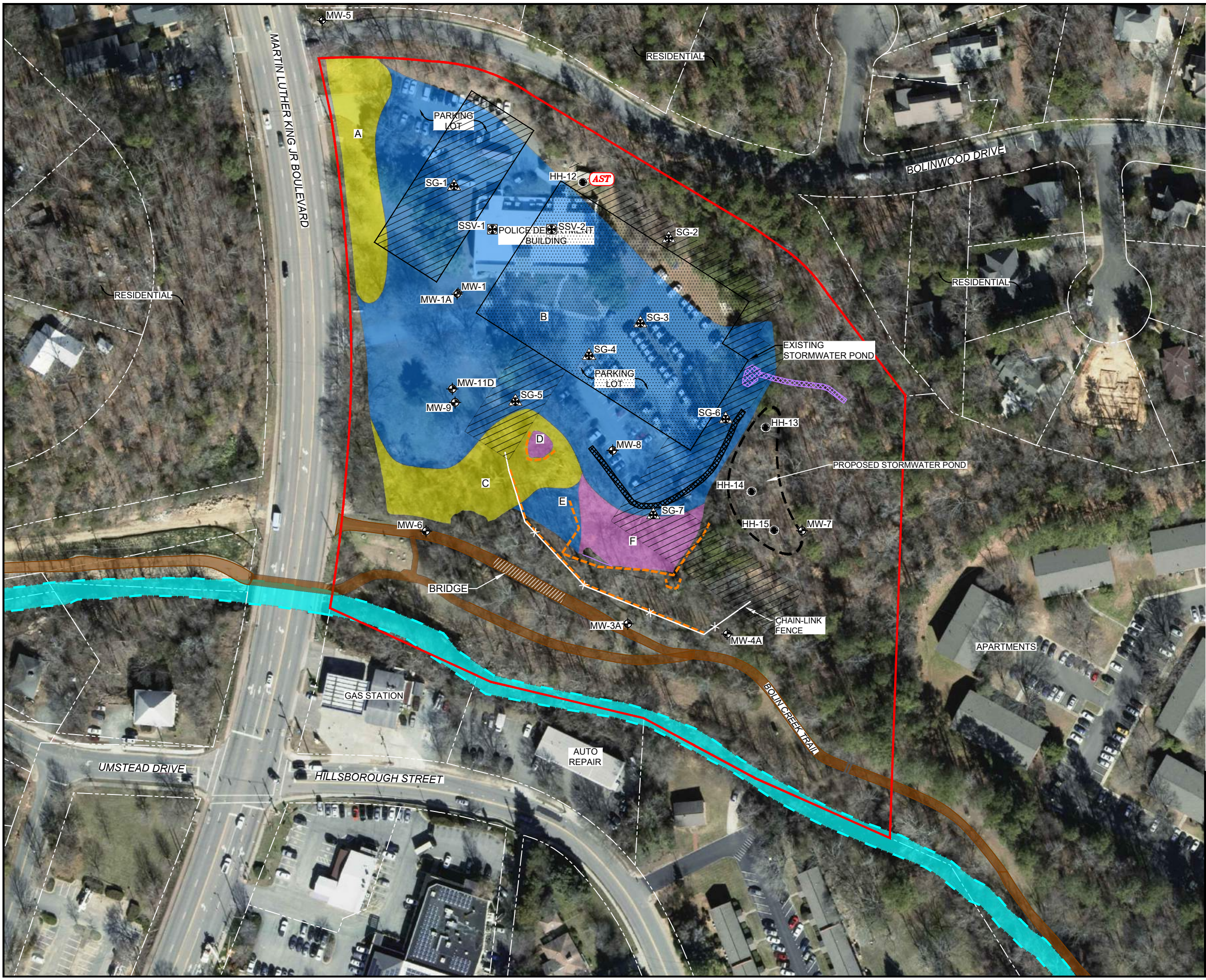
- SITE PROPERTY BOUNDARY
- BOLIN CREEK
- 328— TOPOGRAPHIC CONTOUR ELEVATION (FT MSL)
- CCP UNDER > 2 FT COVER
- CCP UNDER < 2 FT COVER
- CCP EXPOSED AT GROUND SURFACE (HYDROSEEDED)
- BOLIN CREEK TRAIL
- EXISTING SILT FENCE
- STORM DIVERSION CHANNEL
- STORM OUTFALL CHANNEL
- STORMWATER CULVERT
- AST APPROXIMATE DIESEL AST LOCATION
- A CCP AREA DESIGNATION

APPROXIMATE  
SCALE IN FEET

0      115      230

<b>TITLE</b>	
SITE MAP	
<b>PROJECT</b>	
CHAPEL HILL POLICE DEPARTMENT 828 MARTIN LUTHER KING JR. BOULEVARD CHAPEL HILL, NORTH CAROLINA	
<b>SMARTER ENVIRONMENTAL SOLUTIONS</b>	
<small>3921 Sunset Ridge Road, Suite 301 Raleigh, North Carolina 27607 919-847-4241(p) 919-847-4261(f) License # C-1269 / #C-245 Geology</small>	
DATE: 10-17-22	REVISION NO. 0
JOB NO. TCH-009	FIGURE NO. 2

S:\AA-Master Projects\Town of Chapel Hill (TCH)\TCH-009 - Police Station - Remedial Services\Brownfields Documents\Brownfields Assessment Report\Figures\TCH-009 2022\03-FIGs.dwg, FIG 3, 12/9/2022 8:24:44 AM, shaynes



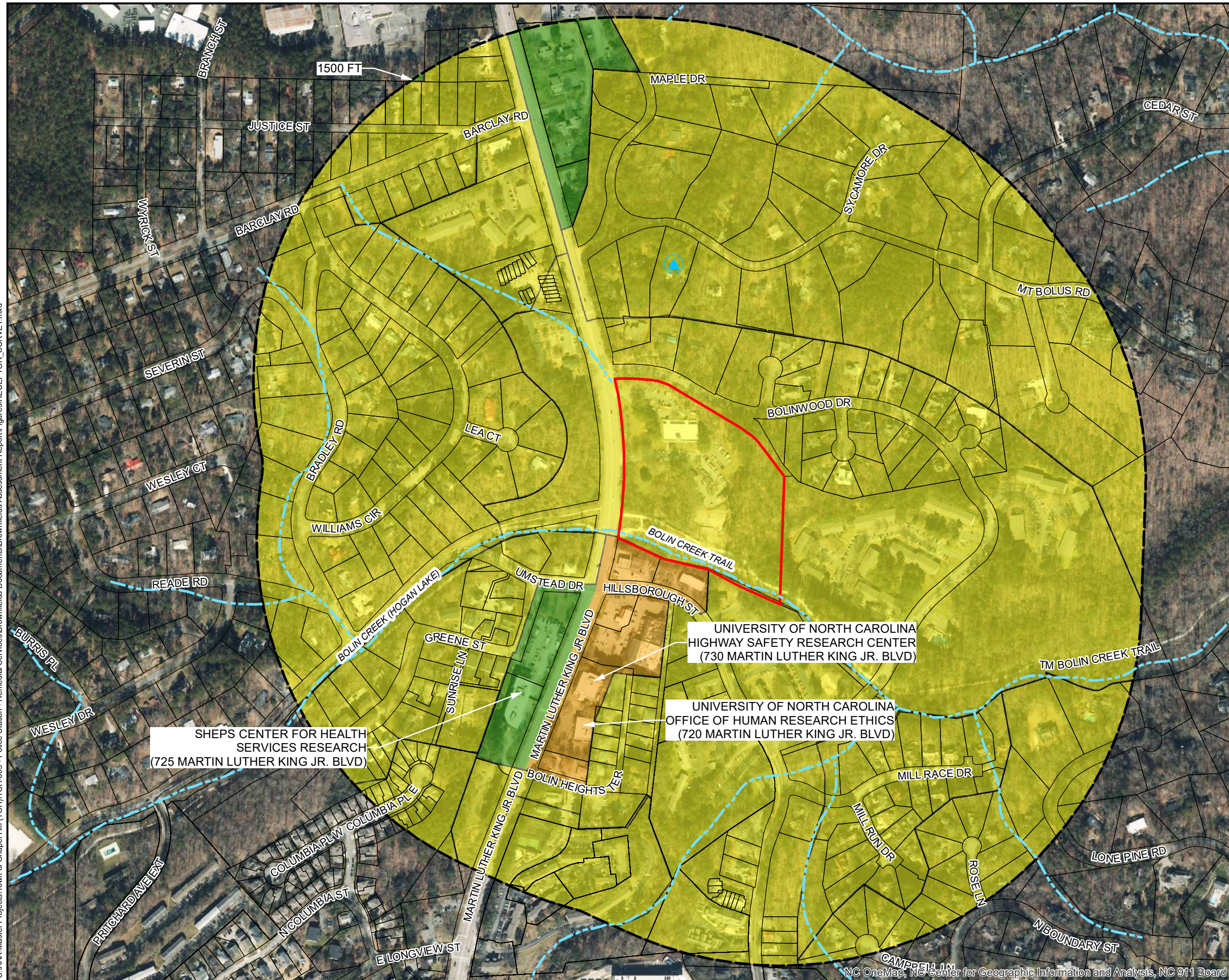
**LEGEND**

- SITE PROPERTY BOUNDARY
- BOLIN CREEK
- STORMWATER CULVERT
- AST APPROXIMATE DIESEL AST LOCATION
- BOLIN CREEK TRAIL
- EXISTING SILT FENCE
- STORM DIVERSION CHANNEL
- STORM OUTFALL CHANNEL
- A CCP AREA DESIGNATION
- CONCEPTUAL COMMERCIAL/OFFICE SPACE
- CONCEPTUAL PARKING GARAGE
- SOIL GAS SAMPLE LOCATION
- SUB-SLAB GAS SAMPLE LOCATION
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- CCP UNDER > 2 FT COVER
- CCP UNDER < 2 FT COVER
- CCP EXPOSED AT GROUND SURFACE (HYDROSEEDDED)

APPROXIMATE  
0 115 230  
SCALE IN FEET

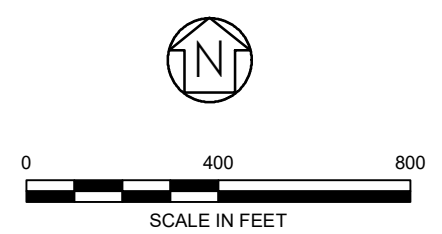
<b>TITLE</b>	
CONCEPTUAL REDEVELOPMENT PLAN AND SAMPLE LOCATION MAP	
<b>PROJECT</b>	
CHAPEL HILL POLICE DEPARTMENT 828 MARTIN LUTHER KING JR. BOULEVARD CHAPEL HILL, NORTH CAROLINA	
3921 Sunset Ridge Road, Suite 301 Raleigh, North Carolina 27607 919-847-4241(p) 919-847-4261(f) License # C-1269 / #C-245 Geology	
DATE: 10-17-22	REVISION NO. 0
JOB NO. TCH-009	FIGURE NO. 3

S:\AAA-Master Projects\Town of Chapel Hill (TCH)\TCH-009 - Police Station - Remedial Services\Brownfields Documents\Brownfields Assessment Report\Figures\RECEPTOR\_SURVEY.mxd



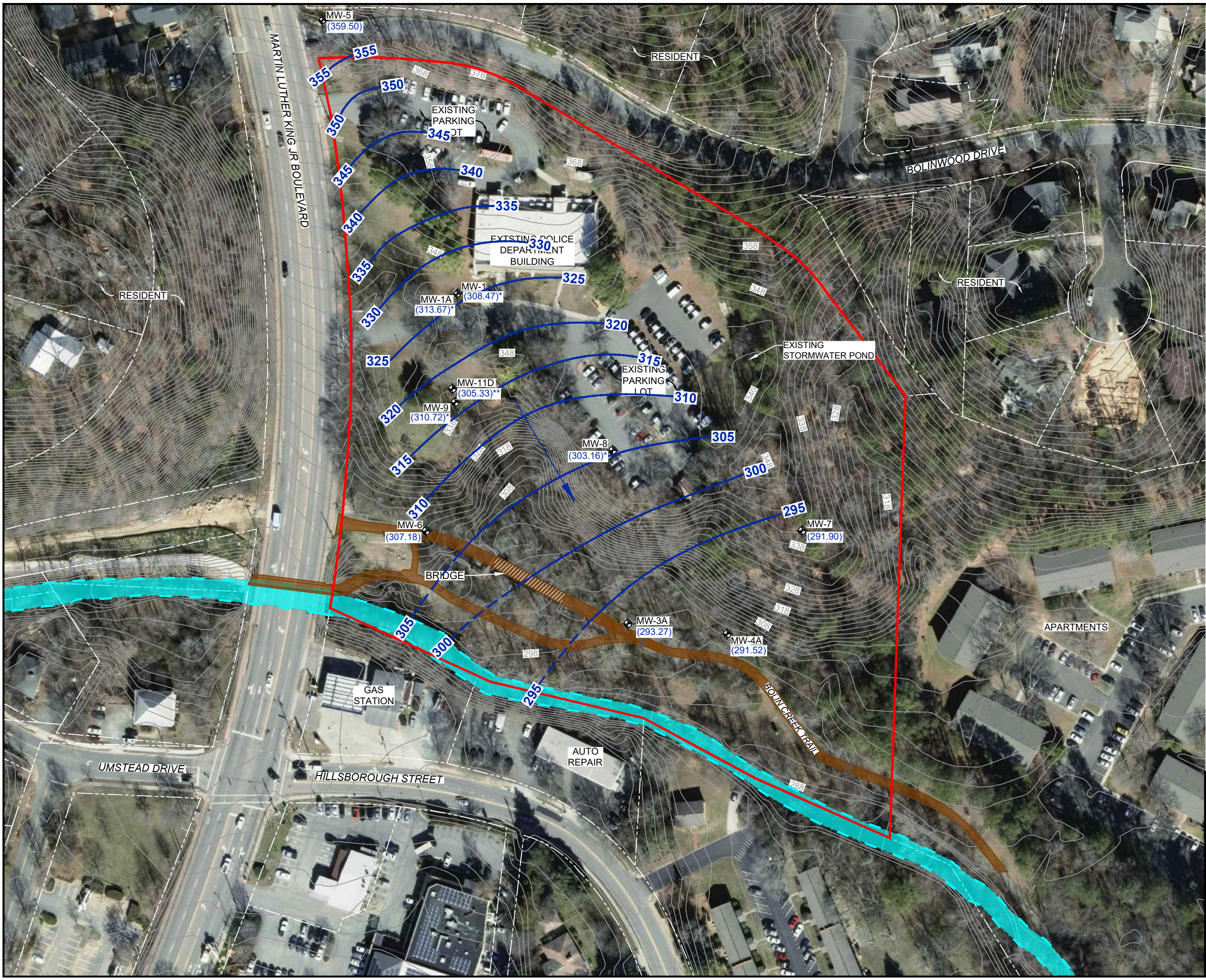
LEGEND	
	SITE PROPERTY BOUNDARY
	PARCEL BOUNDARY LINE
	SURFACE WATER FEATURE
	NEIGHBORHOOD/COMMERCIAL ZONING
	OFFICE/INSITUTIONAL ZONING
	RESIDENTIAL ZONING
	POTENTIAL WATER SUPPLY WELL

- NOTES:**
1. PARCEL AND ZONING DATA FROM ORANGE COUNTY GIS, 2022.
  2. AERIAL IMAGERY OBTAINED FROM NC ONEMAP, 2019.



TITLE	RECEPTOR SURVEY MAP	
PROJECT	CHAPEL HILL POLICE DEPARTMENT 828 MARTIN LUTHER KING JR. BOULEVARD CHAPEL HILL, NORTH CAROLINA	
		3921 Sunset Ridge Rd, Ste 301 Raleigh, North Carolina 27607 919-847-4241 (p) 919-847-4261 (f) License # C-1269 / # C-245 Geology
DATE:	11-1-22	REVISION NO: 0
JOB NO.:	TCH-009	FIGURE NO: 4

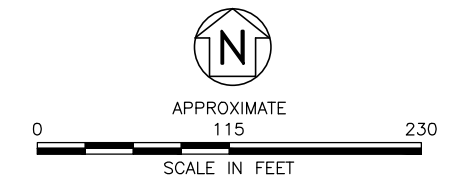
S:\AA-Master Projects\Town of Chapel Hill (TCH)\TCH-009 - Police Station - Remedial Services\Brownfields Documents\Brownfields Assessment Report\Figures\TCH-009 2022\031.dwg, FIG 5, 10/31/2022 12:43:14 PM, shaynes



**LEGEND**

- SITE PROPERTY BOUNDARY
- BOLIN CREEK
- 308 TOPOGRAPHIC CONTOUR ELEVATION (FT MSL)
- MONITORING WELL LOCATION
- STORMWATER CULVERT
- AST APPROXIMATE DIESEL AST LOCATION
- BOLIN CREEK TRAIL
- (359.50) GROUNDWATER ELEVATION (FT MSL)
- 300 GROUNDWATER ELEVATION CONTOUR (FT MSL) (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

- NOTES:**
1. \* = SHALLOW WELLS IN FILL (MW-1, MW-1A, MW-8, AND MW-9) NOT USED IN CONTOURING DUE TO LIKELY PERCHED GROUNDWATER.
  2. \*\* = DEEP WELL MW-11D NOT USED IN CONTOURING.
  3. GROUNDWATER ELEVATIONS MEASURED ON AUGUST 29, 2022.



<b>TITLE</b>	<b>UNCONFINED AQUIFER POTENTIOMETRIC MAP</b>	
<b>PROJECT</b>	CHAPEL HILL POLICE DEPARTMENT 828 MARTIN LUTHER KING JR. BOULEVARD CHAPEL HILL, NORTH CAROLINA	
		3921 Sunset Ridge Road, Suite 301 Raleigh, North Carolina 27607 919-847-4241(p) 919-847-4261(f) License # C-1269 / #C-245 Geology
<b>DATE:</b> 10-24-22	<b>REVISION NO.</b> 0	
<b>JOB NO.</b> TCH-009	<b>FIGURE NO.</b> 5	

**Appendix A**  
**Brownfields Receptor Survey Form**

North Carolina Department of Environmental Quality  
 Division of Waste Management  
 Brownfields Program

## BROWNFIELDS PROPERTY RECEPTOR SURVEY

This form was created to clarify and simplify preparing a receptor survey for a brownfield site. Please provide the information requested below. Distances are measured from the site property boundary unless otherwise indicated by the DEQ Brownfield's Project Manager (PM).

Site: Town of Chapel Hill Police Department  
 Address: 828 Martin Luther King Jr. Blvd.  
 City: Chapel Hill  
 County: Orange  
 Brownfields Project 23022-19068  
 Date 10/27/22

### Property and Building Characteristics

<i>Surface Conditions</i>	<i>Current Usage</i>	<i>Proposed Usage</i>
Size of Property (acres)	10.24	10.24
% of property that is wooded/brush	65%	60%
% of property that is grassed areas	10%	10%
% of property that is agricultural crops	0%	0%
% of property that is paved	20%	15%
% of property that is covered by buildings	5%	15%

If an existing building is on-site, please respond to the following. Information can be provided on additional sheets as needed. If numerous buildings are on-site, consult with your PM as only information on specific buildings may be needed.

a. Provide occupancy and use information.

The property consists of one parcel that is developed with two asphalt-paved parking lots, driveway, access road, concrete sidewalks, and a commercial building. The remainder of the site is wooded. The Bolin Creek Trail runs along Bolin Creek near the southern site boundary. The building on the site is primarily for office spaces.

b. Describe the construction of the building including materials (e.g. wood frame, block), type and size of openings (e.g. windows, bay doors), and height (number of stories).

The two-story commercial structure is of poured concrete and cinder block construction with the front face of the building consisting of large windows across the 1st and 2nd stories and walk-through doors.

c. Describe the foundation construction. Include details on type, floor construction, and depth below grade.

The building is situated on a slab-on-grade foundation.

d. Describe the HVAC system in the building. Include available details on type, equipment location, source of air return, and design considerations (e.g. positive pressure?).

The building is heated/cooled with an electric HVAC unit. HVAC system is located on the roof of the 1st floor and the exhaust is located on the roof of the second floor.

e. Are any subslab ventilation systems or moisture barriers in place? If so, please provide details.

No sub-slab ventilation systems or moisture barriers are known to be in place at the site, although it is possible a moisture barrier is present below the building.

North Carolina Department of Environmental Quality  
 Division of Waste Management  
 Brownfields Program

## Surrounding Property Land Use

Please provide information on the following land uses in the vicinity of the subject site, including a map of the surrounding areas. If specific receptors are present, please provide addresses of the facilities.

<i>Zoning/Land Use</i>	<i>Current Use/Occupant</i>	<i>Proposed Usage</i>
North	Residential	Same
South	Residential/Commercial	
East	Residential	
West	Residential	

<i>Specific Land Uses of Interest</i>	<i>Y/N *</i>	<i>Distance (ft)</i>	<i>Direction</i>	<i>Address</i>
Is a school or daycare center within 1,000 ft of the Property?	Y	550	South	See attached Figure 4
Is there a residence within 1,000 ft of the Property?	Y	Adjacent residences to the north, south, east and west		
Is there a basement within 1,000 ft of the Property	Y	Adjacent residences with basements to the north, east and west		

\* If numerous facilities of interest are present, their locations can be placed on a map in lieu of providing specific addresses.

## Utilities

For the subject property, please provide a map of known buried utilities. If available, include depth to top, construction material, and diameter of the utilities. In addition, please provide the following information on utility providers. If additional assessment is required, the public utility locators should be contacted. This information can then be added to a site map.

Is there a septic system on-site? (Y or N)     N    

Please provide the utility providers for the subject property

- a. Natural Gas     Dominion Energy
- b. Sewer     OWASA
- c. Electricity     Duke Energy Progress
- d. Other

For surrounding properties, please complete the following table with available information.

<i>Utility/Potential Receptor</i>	<i>Y/N *</i>	<i>Distance (ft)</i>	<i>Direction</i>
Is a storm water pipe within 100 ft of the Property boundary?	Y	on-Site	
Is a sanitary sewer within 100 ft of the Property boundary?	Y	on-Site	
Is a septic system leach field within 500 ft of the Property boundary?	N		
Is a water line main within 100 ft of Property boundary?	Y	on-Site	
Is a natural gas line main within 100 ft of the Property boundary?	Y	on-Site	
Is a buried telephone/ cable main within 100 ft of the Property boundary?	Y	on-Site	
Is a buried electrical cable main within 100 ft of Property boundary?	Y	on-Site	

\* If yes, please provide a map or detailed information (distance, direction, depth) of the utility in correlation with the subject property.

North Carolina Department of Environmental Quality  
 Division of Waste Management  
 Brownfields Program

## Water Supply

The purpose of this section is to provide information on the water supply for the site and surrounding areas.

What is the potable water supply for the property? Public Yes Private \_\_\_\_\_

If Private, please provide details of the water supply source (i.e. well location, well construction, etc). If public, please include the water providers name.

N/A

Please provide the following information regarding water supply wells in the vicinity of the Property. At a minimum, a windshield survey within 1,500 ft of the property boundaries should be completed to determine if water supply or irrigation wells may be present. Information from applicable databases can and should be utilized; however, should not be utilized in lieu of the windshield survey. If multiple wells are present within the requested radius, please provide a map of the well locations. If needed, please attach a separate table to list all wells. Please note, the PM may opt for a more extensive water supply well survey if needed.

<i>Water Supply Wells</i>	<i>Y/N</i>	<i>Distance (ft)</i>	<i>Direction</i>	<i>Address</i>
Is a public water supply well within 1 mile of the Property boundary?	N		N/A	
Is a private water supply well within 1,500 ft of the Property	Y	500	North	3 Mt Bolus Rd
Is an irrigation well within 1,500 ft of the Property boundary?	N	N/A	N/A	N/A

## Surface Water & Wetlands

The purpose of this section is to provide information on the presence of surface waters and/or wetlands on, or in the vicinity of the Property.

<i>Provide Information regarding Surface Water and Wetlands</i>	<i>Response/Comments</i>
Are there surface water features on the property? (If yes, please complete a. to d.)	Bolin Creek runs along the southern property boundary, which is classified as a Riverine Lower Perennial Unconsolidated Bottom Permanently Flooded Steam (R2UBH)
a. Is the water body naturally developed or man-made?	Naturally developed
b. List the uses of the water body.	No known uses in immediate vicinity of site. Bolin Creek eventually discharges to Jordan Lake approximately six miles from the site.
c. What is the source of the water for the water body?	Groundwater discharge and surface drainage/runoff
d. What is the nature of the bottom of the water body (e.g., rocky or concrete bottom, drainage ways or impoundments)	Bottom is rocky
If no on-site surface water features, what is the nearest surface water body?	N/A
Are there any wetlands present on the property? If no wetlands on-site, are wetlands suspected on adjoining properties?	No mapped wetlands are known to be present



**Appendix B**  
**Boring Logs**



Client: Town of Chapel Hill  
 Project: TCH-009  
 Address: 828 MLK Jr Drive, Chapel Hill, NC

**BORING LOG**  
 Boring No. HH-12  
 Page: 1 of 1

Drilling Start Date: 9/6/2022 10:10  
 Drilling End Date: 9/6/2022 10:45  
 Drilling Company: Hart & Hickman  
 Drilling Method: Other  
 Drilling Equipment: Hand Auger  
 Driller: Sean Horgan  
 Logged By: Sean Horgan

Boring Depth (ft): 5.0  
 Boring Diameter (in): 2.50  
 Sampling Method(s): Grab  
 DTW During Drilling (ft):  
 DTW After Drilling (ft):  
 Ground Surface Elev. (ft):  
 Location (X,Y):

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts	Recovery (ft)		PID (ppm)	Lab Sample	
0				GR				(0') SILT (ML); few fine-medium sand, medium stiff, dry, light brown	5.6		0
				GR				(2') Silty SAND (SM); loose, dry, light reddish-brown	3.1		
				GR					35.3	HH-12 (4-5)	
5								(5') Boring terminated			5
10											10

NOTES:



Client: Town of Chapel Hill  
 Project: TCH-009  
 Address: 828 MLK Jr Drive, Chapel Hill, NC

**BORING LOG**  
 Boring No. HH-13  
 Page: 1 of 1

Drilling Start Date: 9/6/2022 8:55	Boring Depth (ft): 5.0
Drilling End Date: 9/6/2022 9:40	Boring Diameter (in): 2.50
Drilling Company: Hart & Hickman	Sampling Method(s): Grab
Drilling Method: Other	DTW During Drilling (ft):
Drilling Equipment: Hand Auger	DTW After Drilling (ft):
Driller: Sean Horgan	Ground Surface Elev. (ft):
Logged By: Sean Horgan	Location (X,Y):

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts	Recovery (ft)		PID (ppm)	Lab Sample	
0											0
0				GR				(0') Poorly graded SAND with gravel (SP); some coarse gravel, little silt, medium dense, dry, light reddish-brown	1.1	HH-13 (0-2)	0
2.00				GR				(2') Sandy SILT (ML); few coarse gravel, medium stiff, dry, reddish	1.0		2.00
5.00				GR				(5') Boring terminated	1.0		5.00
10											10

NOTES:







Client: **Town of Chapel Hill**  
 Project: **TCH-009**  
 Address: **828 MLK Jr Drive, Chapel Hill, NC**

**WELL LOG**  
 Well No. **SG-1**  
 Page: **1 of 1**

Drilling Start Date: <b>8/30/2022 7:45</b>	Boring Depth (ft): <b>5.5</b>	Well Depth (ft): <b>5.5</b>
Drilling End Date: <b>8/30/2022 9:00</b>	Boring Diameter (in): <b>2.50</b>	Well Diameter (in): <b>0.2</b>
Drilling Company: <b>Hart &amp; Hickman</b>	Sampling Method(s): <b>Grab</b>	Screen Slot (in): <b>0.001</b>
Drilling Method: <b>Other</b>	DTW During Drilling (ft):	Riser Material: <b>Other</b>
Drilling Equipment: <b>Hand Auger</b>	DTW After Drilling (ft):	Screen Material: <b>Other</b>
Driller: <b>Sean Horgan</b>	Top of Casing Elev. (ft):	Seal Material(s): <b>Bent. Chips</b>
Logged By: <b>Sean Horgan</b>	Location (X,Y):	Filter Type: <b>6" Vapor Screen</b>

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts		Recovery (ft)	PID (ppm)	
0										0
							(0') Poorly graded SAND with gravel (SP); some coarse gravel, few silt, dense, dry, reddish			0.3
										2.00
							(2.5') Silty SAND (SM); few coarse gravel, dense, moist, reddish-brown			0.4
										1.50
										5
							(5.5') Boring terminated			10

NOTES:



Client: **Town of Chapel Hill**  
 Project: **TCH-009**  
 Address: **828 MLK Jr Drive, Chapel Hill, NC**

**WELL LOG**  
 Well No. **SG-2**  
 Page: **1 of 1**

Drilling Start Date: **8/29/2022 11:55**  
 Drilling End Date: **8/29/2022 13:15**  
 Drilling Company: **Hart & Hickman**  
 Drilling Method: **Other**  
 Drilling Equipment: **Hand Auger**  
 Driller: **Sean Horgan**  
 Logged By: **Sean Horgan**

Boring Depth (ft): **4.0**  
 Boring Diameter (in): **2.50**  
 Sampling Method(s): **Grab**  
 DTW During Drilling (ft):  
 DTW After Drilling (ft):  
 Top of Casing Elev. (ft):  
 Location (X,Y):

Well Depth (ft): **4.0**  
 Well Diameter (in): **0.2**  
 Screen Slot (in): **0.001**  
 Riser Material: **Other**  
 Screen Material: **Other**  
 Seal Material(s): **Bent. Chips**  
 Filter Type: **6" Vapor Screen**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts		Recovery (ft)	PID (ppm)	
0										0
0.4				GR			(0') Poorly graded SAND with gravel (SP); little coarse gravel, few silt, dense, dry, light brown	0.4		0
2.0				GR			(2') (2.5') Lean CLAY (CL); trace fine sand, medium plasticity, stiff, dry, light gray	0.2		
3.5							(3.5') Well-graded SAND (SW); very dense, dry, light brown			
4.0							(4') Rock encountered. Boring terminated			
5										5
10										10

NOTES:



Client: **Town of Chapel Hill**  
 Project: **TCH-009**  
 Address: **828 MLK Jr Drive, Chapel Hill, NC**

**WELL LOG**  
 Well No. **SG-3**  
 Page: **1 of 1**

Drilling Start Date: <b>8/29/2022 13:25</b>	Boring Depth (ft): <b>5.5</b>	Well Depth (ft): <b>5.0</b>
Drilling End Date: <b>8/29/2022 16:45</b>	Boring Diameter (in): <b>2.50</b>	Well Diameter (in): <b>0.2</b>
Drilling Company: <b>Hart &amp; Hickman</b>	Sampling Method(s): <b>Grab</b>	Screen Slot (in): <b>0.001</b>
Drilling Method: <b>Other</b>	DTW During Drilling (ft):	Riser Material: <b>Other</b>
Drilling Equipment: <b>Hand Auger</b>	DTW After Drilling (ft):	Screen Material: <b>Other</b>
Driller: <b>Holly Walsh</b>	Top of Casing Elev. (ft):	Seal Material(s): <b>Bent. Chips</b>
Logged By: <b>Sean Horgan</b>	Location (X,Y):	Filter Type: <b>6" Vapor Screen</b>

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts		Recovery (ft)	PID (ppm)	
0										0
							(0') Sandy SILT (ML); medium stiff, moist, dark brown	0.7		
							(0.5') Poorly graded SAND (SP); few coarse gravel, little silt, dense, dry, dark gray			
							(1.5') SILT (ML); few coarse gravel, few fine-medium sand, stiff, moist, dark gray			
							(2.00)	2.1		
							(3') As Above: dark reddish brown			
							(3.5') Silty SAND (SM); medium dense, moist, brown			
							(2.00)	2.5		
5							(5') Poorly graded SAND (SP); mostly medium-coarse grained sand, trace clay, medium dense, wet, gray			5
							(5.5') Boring terminated			
10										10

NOTES:





Client: **Town of Chapel Hill**  
 Project: **TCH-009**  
 Address: **828 MLK Jr Drive, Chapel Hill, NC**

**WELL LOG**  
 Well No. **SG-4**  
 Page: **1 of 1**

Drilling Start Date: <b>8/29/2022 14:50</b>	Boring Depth (ft): <b>4.0</b>	Well Depth (ft): <b>4.0</b>
Drilling End Date: <b>8/29/2022 16:35</b>	Boring Diameter (in): <b>2.50</b>	Well Diameter (in): <b>0.2</b>
Drilling Company: <b>Hart &amp; Hickman</b>	Sampling Method(s): <b>Grab</b>	Screen Slot (in): <b>0.001</b>
Drilling Method: <b>Other</b>	DTW During Drilling (ft):	Riser Material: <b>Other</b>
Drilling Equipment: <b>Hand Auger</b>	DTW After Drilling (ft):	Screen Material: <b>Other</b>
Driller: <b>Sean Horgan</b>	Top of Casing Elev. (ft):	Seal Material(s): <b>Bent. Chips</b>
Logged By: <b>Holly Walsh</b>	Location (X,Y):	Filter Type: <b>6" Vapor Screen</b>

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts		Recovery (ft)	PID (ppm)	
0										0
							(0') Poorly graded SAND with gravel (SP); some coarse gravel, few silt, dense, dry, light reddish-brown	1.1		
							(2') Sandy SILT (ML); few coarse gravel, very stiff, dry, light brown	1.0		
							(3') Sandy SILT (ML); stiff, dry, dark gray			
							(4') Boring terminated			
5										5
10										10

NOTES:



Client: **Town of Chapel Hill**  
 Project: **TCH-009**  
 Address: **828 MLK Jr Drive, Chapel Hill, NC**

**WELL LOG**  
 Well No. **SG-5**  
 Page: **1 of 1**

Drilling Start Date: **8/30/2022 11:35**  
 Drilling End Date: **8/30/2022 12:15**  
 Drilling Company: **Hart & Hickman**  
 Drilling Method: **Other**  
 Drilling Equipment: **Hand Auger**  
 Driller: **Sean Horgan**  
 Logged By: **Sean Horgan**

Boring Depth (ft): **5.5**  
 Boring Diameter (in): **2.50**  
 Sampling Method(s): **Grab**  
 DTW During Drilling (ft):  
 DTW After Drilling (ft):  
 Top of Casing Elev. (ft):  
 Location (X,Y):

Well Depth (ft): **5.5**  
 Well Diameter (in): **0.2**  
 Screen Slot (in): **0.001**  
 Riser Material: **Other**  
 Screen Material: **Other**  
 Seal Material(s): **Bent. Chips**  
 Filter Type: **6" Vapor Screen**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts		Recovery (ft)	PID (ppm)	
0							(0') Silty SAND (SM); few coarse gravel, medium dense, moist, brown	1.4		0
							(1') Sandy SILT (ML); some coarse gravel, stiff, moist, dark gray			
								1.1		
							(3.5') Silty SAND (SM); dense, moist, brown			
								1.1		
5							(5.5') Boring terminated			5
10										10

NOTES:



Client: **Town of Chapel Hill**  
 Project: **TCH-009**  
 Address: **828 MLK Jr Drive, Chapel Hill, NC**

**WELL LOG**  
 Well No. **SG-6**  
 Page: **1 of 1**

Drilling Start Date: **8/30/2022 10:30**  
 Drilling End Date: **8/30/2022 11:15**  
 Drilling Company: **Hart & Hickman**  
 Drilling Method: **Other**  
 Drilling Equipment: **Hand Auger**  
 Driller: **Sean Horgan**  
 Logged By: **Sean Horgan**

Boring Depth (ft): **4.5**  
 Boring Diameter (in): **2.50**  
 Sampling Method(s): **Grab**  
 DTW During Drilling (ft):  
 DTW After Drilling (ft):  
 Top of Casing Elev. (ft):  
 Location (X,Y):

Well Depth (ft): **4.5**  
 Well Diameter (in): **0.2**  
 Screen Slot (in): **0.001**  
 Riser Material: **Other**  
 Screen Material: **Other**  
 Seal Material(s): **Bent. Chips**  
 Filter Type: **6" Vapor Screen**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts		Recovery (ft)	PID (ppm)	
0										0
							(0') Silty SAND (SM); few coarse gravel, dense, dry, light yellowish-brown	0.4		
							(1') Poorly graded GRAVEL (GP); few medium-coarse sand, some silt, medium dense, moist, black, brick fragments			
							(1.5') SILT (ML); few medium-coarse sand, medium stiff, moist, black			
							(2') SILT (ML); little medium-coarse sand, stiff, moist, reddish-brown	0.5		
							(3') SILT (ML); medium stiff, moist, black			
							(4.5') rock and debris encountered. Boring terminated			
5										5
10										10

NOTES:



Client: **Town of Chapel Hill**  
 Project: **TCH-009**  
 Address: **828 MLK Jr Drive, Chapel Hill, NC**

**WELL LOG**  
 Well No. **SG-7**  
 Page: **1 of 1**

Drilling Start Date: <b>8/30/2022 9:20</b>	Boring Depth (ft): <b>5.5</b>	Well Depth (ft): <b>5.0</b>
Drilling End Date: <b>8/30/2022 10:10</b>	Boring Diameter (in): <b>2.50</b>	Well Diameter (in): <b>0.2</b>
Drilling Company: <b>Hart &amp; Hickman</b>	Sampling Method(s): <b>Grab</b>	Screen Slot (in): <b>0.001</b>
Drilling Method: <b>Other</b>	DTW During Drilling (ft):	Riser Material: <b>Other</b>
Drilling Equipment: <b>Hand Auger</b>	DTW After Drilling (ft):	Screen Material: <b>Other</b>
Driller: <b>Sean Horgan</b>	Top of Casing Elev. (ft):	Seal Material(s): <b>Bent. Chips</b>
Logged By: <b>Sean Horgan</b>	Location (X,Y):	Filter Type: <b>6" Vapor Screen</b>

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts	Recovery (ft)		PID (ppm)	Lab Sample	
0								(0') Silty SAND (SM); medium dense, moist, reddish	0.3		0
								(1') SILT (ML); few coarse gravel, little fine-medium sand, some clay, stiff, moist, dark reddish-brown			
								(2') As Above: dark brown, trace brick fragments	0.2		
								(4') Well-graded SAND (SW); few silt, little clay, medium dense, moist, reddish-brown	0.1		
5								(5') As Above: wet			5
								(5.5') Boring terminated			
10											10

NOTES:

**Appendix C**  
**Laboratory Analytical Reports**

October 05, 2022

Jared Wilke  
Hart & Hickman  
3921 Sunset Ridge Rd  
Suite 301  
Raleigh, NC 27607

RE: Project: TCH-009 SOIL  
Pace Project No.: 92624949

Dear Jared Wilke:

Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Godwin  
kevin.godwin@pacelabs.com  
1(704)875-9092  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

### Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414  
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab  
A2LA Certification #: 2926.01\*  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009\*  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014\*  
Arkansas DW Certification #: MN00064  
Arkansas WW Certification #: 88-0680  
California Certification #: 2929  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605\*  
Georgia Certification #: 959  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: AI-03086\*  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064\*  
Maryland Certification #: 322  
Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137\*  
Minnesota Dept of Ag Approval: via MN 027-053-137  
Minnesota Petrofund Registration #: 1240\*  
Mississippi Certification #: MN00064

Missouri Certification #: 10100  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081\*  
New Jersey Certification #: MN002  
New York Certification #: 11647\*  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification (A2LA) #: R-036  
North Dakota Certification (MN) #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification (1700) #: CL101  
Ohio VAP Certification (1800) #: CL110\*  
Oklahoma Certification #: 9507\*  
Oregon Primary Certification #: MN300001  
Oregon Secondary Certification #: MN200001\*  
Pennsylvania Certification #: 68-00563\*  
Puerto Rico Certification #: MN00064  
South Carolina Certification #: 74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192\*  
Utah Certification #: MN00064\*  
Vermont Certification #: VT-027053137  
Virginia Certification #: 460163\*  
Washington Certification #: C486\*  
West Virginia DEP Certification #: 382  
West Virginia DW Certification #: 9952 C  
Wisconsin Certification #: 999407970  
Wyoming UST Certification #: via A2LA 2926.01  
USDA Permit #: P330-19-00208  
\*Please Note: Applicable air certifications are denoted with an asterisk (\*).

### Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122  
Alabama Certification #: 40660  
Alaska Certification 17-026  
Arizona Certification #: AZ0612  
Arkansas Certification #: 88-0469  
California Certification #: 2932  
Canada Certification #: 1461.01  
Colorado Certification #: TN00003  
Connecticut Certification #: PH-0197  
DOD Certification: #1461.01  
EPA# TN00003  
Florida Certification #: E87487  
Georgia DW Certification #: 923  
Georgia Certification: NELAP  
Idaho Certification #: TN00003  
Illinois Certification #: 200008

Indiana Certification #: C-TN-01  
Iowa Certification #: 364  
Kansas Certification #: E-10277  
Kentucky UST Certification #: 16  
Kentucky Certification #: 90010  
Louisiana Certification #: AI30792  
Louisiana DW Certification #: LA180010  
Maine Certification #: TN0002  
Maryland Certification #: 324  
Massachusetts Certification #: M-TN003  
Michigan Certification #: 9958  
Minnesota Certification #: 047-999-395  
Mississippi Certification #: TN00003  
Missouri Certification #: 340  
Montana Certification #: CERT0086  
Nebraska Certification #: NE-OS-15-05

## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

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### **Pace Analytical Services National**

Nevada Certification #: TN-03-2002-34	Tennessee DW/Chem/Micro Certification #: 2006
New Hampshire Certification #: 2975	Texas Certification #: T 104704245-17-14
New Jersey Certification #: TN002	Texas Mold Certification #: LAB0152
New Mexico DW Certification	USDA Soil Permit #: P330-15-00234
New York Certification #: 11742	Utah Certification #: TN00003
North Carolina Aquatic Toxicity Certification #: 41	Vermont Dept. of Health: ID# VT-2006
North Carolina Drinking Water Certification #: 21704	Virginia Certification #: VT2006
North Carolina Environmental Certificate #: 375	Virginia Certification #: 460132
North Dakota Certification #: R-140	Washington Certification #: C847
Ohio VAP Certification #: CL0069	West Virginia Certification #: 233
Oklahoma Certification #: 9915	Wisconsin Certification #: 998093910
Oregon Certification #: TN200002	Wyoming UST Certification #: via A2LA 2926.01
Pennsylvania Certification #: 68-02979	A2LA-ISO 17025 Certification #: 1461.01
Rhode Island Certification #: LAO00356	A2LA-ISO 17025 Certification #: 1461.02
South Carolina Certification #: 84004	AIHA-LAP/LLC EMLAP Certification #:100789
South Dakota Certification	

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### **Pace Analytical Services Charlotte**

South Carolina Laboratory ID: 99006	South Carolina Certification #: 99006001
9800 Kinsey Ave. Ste 100, Huntersville, NC 28078	South Carolina Drinking Water Cert. #: 99006003
North Carolina Drinking Water Certification #: 37706	Florida/NELAP Certification #: E87627
North Carolina Field Services Certification #: 5342	Kentucky UST Certification #: 84
North Carolina Wastewater Certification #: 12	Louisiana DoH Drinking Water #: LA029
South Carolina Laboratory ID: 99006	Virginia/VELAP Certification #: 460221

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804	South Carolina Laboratory ID: 99030
Florida/NELAP Certification #: E87648	South Carolina Certification #: 99030001
North Carolina Drinking Water Certification #: 37712	Virginia/VELAP Certification #: 460222
North Carolina Wastewater Certification #: 40	

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: TCH-009 SOIL

Pace Project No.: 92624949

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92624949001	HH-12 (4-5)	Solid	09/06/22 11:15	09/12/22 11:50
92624949002	HH-13 (0-2)	Solid	09/06/22 11:25	09/12/22 11:50
92624949003	HH-14 (0-2)	Solid	09/06/22 00:00	09/12/22 11:50
92624949004	HH-15 (0-2)	Solid	09/06/22 00:00	09/12/22 11:50
92624949005	HH-DUP	Solid	09/06/22 00:00	09/12/22 11:50
92624949006	TRIP BLANK	Water	09/06/22 00:00	09/12/22 11:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: TCH-009 SOIL  
Pace Project No.: 92624949

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92624949001	HH-12 (4-5)	EPA 6010D	DEC	1	PASI-A
		EPA 6020B	RJS	12	PASI-M
		EPA 7471B	NMP	1	PASI-A
		EPA 8270E	BPJ	75	PASI-C
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
92624949002	HH-13 (0-2)	EPA 6010D	DEC	1	PASI-A
		EPA 6020B	RJS	12	PASI-M
		EPA 7471B	NMP	1	PASI-A
		EPA 8270E	BPJ	75	PASI-C
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
92624949003	HH-14 (0-2)	EPA 6010D	DEC	1	PASI-A
		EPA 6020B	RJS	12	PASI-M
		EPA 7471B	NMP	1	PASI-A
		EPA 8270E	BPJ	75	PASI-C
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
92624949004	HH-15 (0-2)	EPA 6010D	DEC	1	PASI-A
		EPA 6020B	RJS	12	PASI-M
		EPA 7471B	NMP	1	PASI-A
		EPA 8270E	BPJ	75	PASI-C
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
92624949005	HH-DUP	EPA 6010D	DEC	1	PASI-A
		EPA 6020B	RJS	12	PASI-M
		EPA 7471B	NMP	1	PASI-A
		EPA 8270E	BPJ	75	PASI-C
		EPA 8260D	CL	70	PASI-C

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: TCH-009 SOIL

Pace Project No.: 92624949

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SW-846	KDF	1	PASI-C
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
<b>92624949006</b>	<b>TRIP BLANK</b>	EPA 8260D	CL	70	PASI-C

PAN = Pace National - Mt. Juliet

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-12 (4-5)**      **Lab ID: 92624949001**      Collected: 09/06/22 11:15      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3050B									
Pace Analytical Services - Asheville									
Strontium	<b>21.8</b>	mg/kg	0.55	0.28	1	09/14/22 10:13	09/18/22 21:33	7440-24-6	
<b>6020B MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3050B									
Pace Analytical Services - Minneapolis									
Arsenic	<b>1.6</b>	mg/kg	0.57	0.16	1	09/26/22 10:54	09/28/22 17:35	7440-38-2	
Barium	<b>65.6</b>	mg/kg	0.34	0.086	1	09/26/22 10:54	09/28/22 01:02	7440-39-3	
Beryllium	<b>0.72</b>	mg/kg	0.23	0.058	1	09/26/22 10:54	09/28/22 01:02	7440-41-7	
Cadmium	<b>0.045J</b>	mg/kg	0.091	0.034	1	09/26/22 10:54	09/28/22 01:02	7440-43-9	
Chromium	<b>10.9</b>	mg/kg	2.3	0.44	1	09/26/22 10:54	09/28/22 01:02	7440-47-3	
Cobalt	<b>13.1</b>	mg/kg	0.57	0.15	1	09/26/22 10:54	09/28/22 01:02	7440-48-4	
Copper	<b>26.6</b>	mg/kg	1.1	0.35	1	09/26/22 10:54	09/28/22 01:02	7440-50-8	
Manganese	<b>94.8</b>	mg/kg	0.57	0.15	1	09/26/22 10:54	09/28/22 17:35	7439-96-5	
Nickel	<b>17.1</b>	mg/kg	0.57	0.27	1	09/26/22 10:54	09/28/22 01:02	7440-02-0	
Selenium	<b>0.28J</b>	mg/kg	0.57	0.12	1	09/26/22 10:54	09/28/22 01:02	7782-49-2	
Thallium	ND	mg/kg	0.11	0.044	1	09/26/22 10:54	09/28/22 01:02	7440-28-0	
Vanadium	<b>59.3</b>	mg/kg	1.1	0.27	1	09/26/22 10:54	09/28/22 01:02	7440-62-2	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471B    Preparation Method: EPA 7471B									
Pace Analytical Services - Asheville									
Mercury	ND	mg/kg	0.0053	0.0041	1	09/19/22 08:20	09/20/22 09:36	7439-97-6	
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	83-32-9	
Acenaphthylene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	208-96-8	
Aniline	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	62-53-3	
Anthracene	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 17:45	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 17:45	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 17:45	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	207-08-9	
Benzoic Acid	ND	mg/kg	2.0	0.86	1	09/15/22 16:49	09/16/22 17:45	65-85-0	
Benzyl alcohol	ND	mg/kg	0.80	0.30	1	09/15/22 16:49	09/16/22 17:45	100-51-6	
4-Bromophenylphenyl ether	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	101-55-3	
Butylbenzylphthalate	ND	mg/kg	0.40	0.17	1	09/15/22 16:49	09/16/22 17:45	85-68-7	
4-Chloro-3-methylphenol	ND	mg/kg	0.80	0.28	1	09/15/22 16:49	09/16/22 17:45	59-50-7	
4-Chloroaniline	ND	mg/kg	0.80	0.31	1	09/15/22 16:49	09/16/22 17:45	106-47-8	
bis(2-Chloroethoxy)methane	ND	mg/kg	0.40	0.17	1	09/15/22 16:49	09/16/22 17:45	111-91-1	
bis(2-Chloroethyl) ether	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	111-44-4	
2-Chloronaphthalene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	91-58-7	
2-Chlorophenol	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	95-57-8	
4-Chlorophenylphenyl ether	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	7005-72-3	
Chrysene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	218-01-9	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: HH-12 (4-5)**      **Lab ID: 92624949001**      Collected: 09/06/22 11:15      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Dibenz(a,h)anthracene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	53-70-3	
Dibenzofuran	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	132-64-9	
1,2-Dichlorobenzene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	106-46-7	
3,3'-Dichlorobenzidine	ND	mg/kg	0.80	0.27	1	09/15/22 16:49	09/16/22 17:45	91-94-1	
2,4-Dichlorophenol	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	120-83-2	v1
Diethylphthalate	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	84-66-2	
2,4-Dimethylphenol	ND	mg/kg	0.40	0.17	1	09/15/22 16:49	09/16/22 17:45	105-67-9	
Dimethylphthalate	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	131-11-3	
Di-n-butylphthalate	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 17:45	84-74-2	
4,6-Dinitro-2-methylphenol	ND	mg/kg	0.80	0.37	1	09/15/22 16:49	09/16/22 17:45	534-52-1	
2,4-Dinitrophenol	ND	mg/kg	2.0	1.2	1	09/15/22 16:49	09/16/22 17:45	51-28-5	
2,4-Dinitrotoluene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	121-14-2	
2,6-Dinitrotoluene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	606-20-2	
Di-n-octylphthalate	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	117-81-7	
Fluoranthene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	206-44-0	
Fluorene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	86-73-7	
Hexachloro-1,3-butadiene	ND	mg/kg	0.40	0.17	1	09/15/22 16:49	09/16/22 17:45	87-68-3	v1
Hexachlorobenzene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	118-74-1	
Hexachlorocyclopentadiene	ND	mg/kg	0.40	0.23	1	09/15/22 16:49	09/16/22 17:45	77-47-4	
Hexachloroethane	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	193-39-5	
Isophorone	ND	mg/kg	0.40	0.18	1	09/15/22 16:49	09/16/22 17:45	78-59-1	
1-Methylnaphthalene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	91-57-6	
2-Methylphenol(o-Cresol)	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	15831-10-4	
Naphthalene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	91-20-3	
2-Nitroaniline	ND	mg/kg	2.0	0.33	1	09/15/22 16:49	09/16/22 17:45	88-74-4	
3-Nitroaniline	ND	mg/kg	2.0	0.31	1	09/15/22 16:49	09/16/22 17:45	99-09-2	
4-Nitroaniline	ND	mg/kg	0.80	0.30	1	09/15/22 16:49	09/16/22 17:45	100-01-6	
Nitrobenzene	ND	mg/kg	0.40	0.19	1	09/15/22 16:49	09/16/22 17:45	98-95-3	
2-Nitrophenol	ND	mg/kg	0.40	0.17	1	09/15/22 16:49	09/16/22 17:45	88-75-5	
4-Nitrophenol	ND	mg/kg	2.0	0.77	1	09/15/22 16:49	09/16/22 17:45	100-02-7	
N-Nitrosodimethylamine	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 17:45	62-75-9	
N-Nitroso-di-n-propylamine	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 17:45	621-64-7	
N-Nitrosodiphenylamine	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 17:45	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.40	0.19	1	09/15/22 16:49	09/16/22 17:45	108-60-1	
Pentachlorophenol	ND	mg/kg	0.80	0.39	1	09/15/22 16:49	09/16/22 17:45	87-86-5	
Phenanthrene	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 17:45	85-01-8	
Phenol	ND	mg/kg	0.40	0.18	1	09/15/22 16:49	09/16/22 17:45	108-95-2	
Pyrene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	129-00-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-12 (4-5)**      **Lab ID: 92624949001**      Collected: 09/06/22 11:15      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Pyridine	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 17:45	110-86-1	
1,2,4-Trichlorobenzene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	120-82-1	
2,4,5-Trichlorophenol	ND	mg/kg	0.40	0.18	1	09/15/22 16:49	09/16/22 17:45	95-95-4	
2,4,6-Trichlorophenol	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 17:45	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	55	%	10-130		1	09/15/22 16:49	09/16/22 17:45	4165-60-0	
2-Fluorobiphenyl (S)	44	%	10-130		1	09/15/22 16:49	09/16/22 17:45	321-60-8	
Terphenyl-d14 (S)	38	%	10-130		1	09/15/22 16:49	09/16/22 17:45	1718-51-0	
Phenol-d6 (S)	46	%	10-130		1	09/15/22 16:49	09/16/22 17:45	13127-88-3	
2-Fluorophenol (S)	48	%	10-130		1	09/15/22 16:49	09/16/22 17:45	367-12-4	
2,4,6-Tribromophenol (S)	68	%	10-131		1	09/15/22 16:49	09/16/22 17:45	118-79-6	
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D    Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
Acetone	ND	mg/kg	0.14	0.045	1	09/12/22 19:30	09/13/22 14:22	67-64-1	
Benzene	ND	mg/kg	0.0070	0.0028	1	09/12/22 19:30	09/13/22 14:22	71-43-2	
Bromobenzene	ND	mg/kg	0.0070	0.0023	1	09/12/22 19:30	09/13/22 14:22	108-86-1	
Bromochloromethane	ND	mg/kg	0.0070	0.0021	1	09/12/22 19:30	09/13/22 14:22	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0070	0.0027	1	09/12/22 19:30	09/13/22 14:22	75-27-4	
Bromoform	ND	mg/kg	0.0070	0.0025	1	09/12/22 19:30	09/13/22 14:22	75-25-2	
Bromomethane	ND	mg/kg	0.014	0.011	1	09/12/22 19:30	09/13/22 14:22	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.14	0.034	1	09/12/22 19:30	09/13/22 14:22	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0070	0.0033	1	09/12/22 19:30	09/13/22 14:22	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0070	0.0031	1	09/12/22 19:30	09/13/22 14:22	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0070	0.0025	1	09/12/22 19:30	09/13/22 14:22	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0070	0.0026	1	09/12/22 19:30	09/13/22 14:22	56-23-5	
Chlorobenzene	<b>0.0037J</b>	mg/kg	0.0070	0.0013	1	09/12/22 19:30	09/13/22 14:22	108-90-7	
Chloroethane	ND	mg/kg	0.014	0.0054	1	09/12/22 19:30	09/13/22 14:22	75-00-3	
Chloroform	ND	mg/kg	0.0070	0.0042	1	09/12/22 19:30	09/13/22 14:22	67-66-3	
Chloromethane	ND	mg/kg	0.014	0.0059	1	09/12/22 19:30	09/13/22 14:22	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0070	0.0025	1	09/12/22 19:30	09/13/22 14:22	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0070	0.0012	1	09/12/22 19:30	09/13/22 14:22	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0070	0.0027	1	09/12/22 19:30	09/13/22 14:22	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0070	0.0039	1	09/12/22 19:30	09/13/22 14:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0070	0.0031	1	09/12/22 19:30	09/13/22 14:22	106-93-4	
Dibromomethane	ND	mg/kg	0.0070	0.0015	1	09/12/22 19:30	09/13/22 14:22	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0070	0.0025	1	09/12/22 19:30	09/13/22 14:22	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0070	0.0022	1	09/12/22 19:30	09/13/22 14:22	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0070	0.0018	1	09/12/22 19:30	09/13/22 14:22	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.014	0.0030	1	09/12/22 19:30	09/13/22 14:22	75-71-8	L1
1,1-Dichloroethane	ND	mg/kg	0.0070	0.0029	1	09/12/22 19:30	09/13/22 14:22	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0070	0.0046	1	09/12/22 19:30	09/13/22 14:22	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0070	0.0029	1	09/12/22 19:30	09/13/22 14:22	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0070	0.0024	1	09/12/22 19:30	09/13/22 14:22	156-59-2	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: HH-12 (4-5)**      **Lab ID: 92624949001**      Collected: 09/06/22 11:15      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D    Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
trans-1,2-Dichloroethene	ND	mg/kg	0.0070	0.0024	1	09/12/22 19:30	09/13/22 14:22	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0070	0.0021	1	09/12/22 19:30	09/13/22 14:22	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0070	0.0022	1	09/12/22 19:30	09/13/22 14:22	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0070	0.0023	1	09/12/22 19:30	09/13/22 14:22	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0070	0.0034	1	09/12/22 19:30	09/13/22 14:22	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0070	0.0019	1	09/12/22 19:30	09/13/22 14:22	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0070	0.0024	1	09/12/22 19:30	09/13/22 14:22	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0070	0.0019	1	09/12/22 19:30	09/13/22 14:22	108-20-3	
Ethylbenzene	<b>0.0045J</b>	mg/kg	0.0070	0.0033	1	09/12/22 19:30	09/13/22 14:22	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.014	0.011	1	09/12/22 19:30	09/13/22 14:22	87-68-3	
2-Hexanone	ND	mg/kg	0.070	0.0067	1	09/12/22 19:30	09/13/22 14:22	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0070	0.0024	1	09/12/22 19:30	09/13/22 14:22	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0070	0.0034	1	09/12/22 19:30	09/13/22 14:22	99-87-6	
Methylene Chloride	ND	mg/kg	0.028	0.019	1	09/12/22 19:30	09/13/22 14:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.070	0.0067	1	09/12/22 19:30	09/13/22 14:22	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0070	0.0026	1	09/12/22 19:30	09/13/22 14:22	1634-04-4	
Naphthalene	ND	mg/kg	0.0070	0.0037	1	09/12/22 19:30	09/13/22 14:22	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0070	0.0025	1	09/12/22 19:30	09/13/22 14:22	103-65-1	
Styrene	ND	mg/kg	0.0070	0.0018	1	09/12/22 19:30	09/13/22 14:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0070	0.0027	1	09/12/22 19:30	09/13/22 14:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0070	0.0018	1	09/12/22 19:30	09/13/22 14:22	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0070	0.0022	1	09/12/22 19:30	09/13/22 14:22	127-18-4	
Toluene	<b>0.0063J</b>	mg/kg	0.0070	0.0020	1	09/12/22 19:30	09/13/22 14:22	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0070	0.0056	1	09/12/22 19:30	09/13/22 14:22	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0070	0.0059	1	09/12/22 19:30	09/13/22 14:22	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0070	0.0036	1	09/12/22 19:30	09/13/22 14:22	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0070	0.0023	1	09/12/22 19:30	09/13/22 14:22	79-00-5	
Trichloroethene	ND	mg/kg	0.0070	0.0018	1	09/12/22 19:30	09/13/22 14:22	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0070	0.0038	1	09/12/22 19:30	09/13/22 14:22	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0070	0.0035	1	09/12/22 19:30	09/13/22 14:22	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0070	0.0019	1	09/12/22 19:30	09/13/22 14:22	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0070	0.0023	1	09/12/22 19:30	09/13/22 14:22	108-67-8	
Vinyl acetate	ND	mg/kg	0.070	0.0051	1	09/12/22 19:30	09/13/22 14:22	108-05-4	L1,v1
Vinyl chloride	ND	mg/kg	0.014	0.0035	1	09/12/22 19:30	09/13/22 14:22	75-01-4	
Xylene (Total)	<b>0.018</b>	mg/kg	0.014	0.0040	1	09/12/22 19:30	09/13/22 14:22	1330-20-7	
m&p-Xylene	<b>0.010J</b>	mg/kg	0.014	0.0048	1	09/12/22 19:30	09/13/22 14:22	179601-23-1	
o-Xylene	<b>0.0080</b>	mg/kg	0.0070	0.0031	1	09/12/22 19:30	09/13/22 14:22	95-47-6	
<b>Surrogates</b>									
Toluene-d8 (S)	101	%	70-130		1	09/12/22 19:30	09/13/22 14:22	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130		1	09/12/22 19:30	09/13/22 14:22	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1	09/12/22 19:30	09/13/22 14:22	17060-07-0	

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### ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: HH-12 (4-5)**      **Lab ID: 92624949001**      Collected: 09/06/22 11:15      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>									
Analytical Method: SW-846 Pace Analytical Services - Charlotte									
Percent Moisture	<b>17.6</b>	%	0.10	0.10	1		09/12/22 17:06		N2
<b>Total Solids 2540 G-2011</b>									
Analytical Method: SM 2540G      Preparation Method: SM 2540 G Pace National - Mt. Juliet									
Total Solids	<b>76.5</b>	%			1	09/17/22 14:46	09/17/22 15:01		
<b>Wet Chemistry 7199</b>									
Analytical Method: EPA 7199      Preparation Method: 3060A Pace National - Mt. Juliet									
Chromium, Hexavalent	<b>0.583J</b>	mg/kg	1.31	0.333	1	09/20/22 20:42	09/23/22 14:30	18540-29-9	J

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-13 (0-2)**      **Lab ID: 92624949002**      Collected: 09/06/22 11:25      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3050B									
Pace Analytical Services - Asheville									
Strontium	15.2	mg/kg	0.52	0.26	1	09/14/22 10:13	09/18/22 21:37	7440-24-6	
<b>6020B MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3050B									
Pace Analytical Services - Minneapolis									
Arsenic	1.0	mg/kg	0.51	0.14	1	09/26/22 10:54	09/28/22 17:39	7440-38-2	
Barium	19.8	mg/kg	0.30	0.076	1	09/26/22 10:54	09/28/22 01:05	7440-39-3	
Beryllium	0.37	mg/kg	0.20	0.051	1	09/26/22 10:54	09/28/22 01:05	7440-41-7	
Cadmium	ND	mg/kg	0.081	0.030	1	09/26/22 10:54	09/28/22 01:05	7440-43-9	
Chromium	15.4	mg/kg	2.0	0.39	1	09/26/22 10:54	09/28/22 01:05	7440-47-3	
Cobalt	3.9	mg/kg	0.51	0.13	1	09/26/22 10:54	09/28/22 01:05	7440-48-4	
Copper	13.8	mg/kg	1.0	0.31	1	09/26/22 10:54	09/28/22 01:05	7440-50-8	
Manganese	368	mg/kg	0.51	0.13	1	09/26/22 10:54	09/28/22 17:39	7439-96-5	
Nickel	4.1	mg/kg	0.51	0.23	1	09/26/22 10:54	09/28/22 01:05	7440-02-0	
Selenium	0.19J	mg/kg	0.51	0.11	1	09/26/22 10:54	09/28/22 01:05	7782-49-2	
Thallium	ND	mg/kg	0.10	0.039	1	09/26/22 10:54	09/28/22 01:05	7440-28-0	
Vanadium	32.6	mg/kg	1.0	0.24	1	09/26/22 10:54	09/28/22 01:05	7440-62-2	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471B    Preparation Method: EPA 7471B									
Pace Analytical Services - Asheville									
Mercury	0.025	mg/kg	0.0044	0.0034	1	09/19/22 08:20	09/20/22 09:39	7439-97-6	
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	83-32-9	
Acenaphthylene	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	208-96-8	
Aniline	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	62-53-3	
Anthracene	ND	mg/kg	0.36	0.12	1	09/15/22 16:49	09/16/22 18:13	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.36	0.12	1	09/15/22 16:49	09/16/22 18:13	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.36	0.12	1	09/15/22 16:49	09/16/22 18:13	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.36	0.12	1	09/15/22 16:49	09/16/22 18:13	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	207-08-9	
Benzoic Acid	ND	mg/kg	1.8	0.78	1	09/15/22 16:49	09/16/22 18:13	65-85-0	
Benzyl alcohol	ND	mg/kg	0.72	0.27	1	09/15/22 16:49	09/16/22 18:13	100-51-6	
4-Bromophenylphenyl ether	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	101-55-3	
Butylbenzylphthalate	ND	mg/kg	0.36	0.15	1	09/15/22 16:49	09/16/22 18:13	85-68-7	
4-Chloro-3-methylphenol	ND	mg/kg	0.72	0.25	1	09/15/22 16:49	09/16/22 18:13	59-50-7	
4-Chloroaniline	ND	mg/kg	0.72	0.28	1	09/15/22 16:49	09/16/22 18:13	106-47-8	
bis(2-Chloroethoxy)methane	ND	mg/kg	0.36	0.15	1	09/15/22 16:49	09/16/22 18:13	111-91-1	
bis(2-Chloroethyl) ether	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	111-44-4	
2-Chloronaphthalene	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	91-58-7	
2-Chlorophenol	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	95-57-8	
4-Chlorophenylphenyl ether	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	7005-72-3	
Chrysene	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	218-01-9	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

Sample: HH-13 (0-2) Lab ID: 92624949002 Collected: 09/06/22 11:25 Received: 09/12/22 11:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Dibenz(a,h)anthracene	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	53-70-3	
Dibenzofuran	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	132-64-9	
1,2-Dichlorobenzene	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	106-46-7	
3,3'-Dichlorobenzidine	ND	mg/kg	0.72	0.24	1	09/15/22 16:49	09/16/22 18:13	91-94-1	
2,4-Dichlorophenol	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	120-83-2	
Diethylphthalate	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	84-66-2	
2,4-Dimethylphenol	ND	mg/kg	0.36	0.15	1	09/15/22 16:49	09/16/22 18:13	105-67-9	v1
Dimethylphthalate	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	131-11-3	
Di-n-butylphthalate	ND	mg/kg	0.36	0.12	1	09/15/22 16:49	09/16/22 18:13	84-74-2	
4,6-Dinitro-2-methylphenol	ND	mg/kg	0.72	0.34	1	09/15/22 16:49	09/16/22 18:13	534-52-1	
2,4-Dinitrophenol	ND	mg/kg	1.8	1.1	1	09/15/22 16:49	09/16/22 18:13	51-28-5	
2,4-Dinitrotoluene	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	121-14-2	
2,6-Dinitrotoluene	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	606-20-2	
Di-n-octylphthalate	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	117-81-7	
Fluoranthene	ND	mg/kg	0.36	0.12	1	09/15/22 16:49	09/16/22 18:13	206-44-0	
Fluorene	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	86-73-7	
Hexachloro-1,3-butadiene	ND	mg/kg	0.36	0.16	1	09/15/22 16:49	09/16/22 18:13	87-68-3	v1
Hexachlorobenzene	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	118-74-1	
Hexachlorocyclopentadiene	ND	mg/kg	0.36	0.21	1	09/15/22 16:49	09/16/22 18:13	77-47-4	
Hexachloroethane	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	193-39-5	
Isophorone	ND	mg/kg	0.36	0.16	1	09/15/22 16:49	09/16/22 18:13	78-59-1	
1-Methylnaphthalene	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	91-57-6	
2-Methylphenol(o-Cresol)	ND	mg/kg	0.36	0.15	1	09/15/22 16:49	09/16/22 18:13	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.36	0.15	1	09/15/22 16:49	09/16/22 18:13	15831-10-4	
Naphthalene	ND	mg/kg	0.36	0.12	1	09/15/22 16:49	09/16/22 18:13	91-20-3	
2-Nitroaniline	ND	mg/kg	1.8	0.30	1	09/15/22 16:49	09/16/22 18:13	88-74-4	
3-Nitroaniline	ND	mg/kg	1.8	0.28	1	09/15/22 16:49	09/16/22 18:13	99-09-2	
4-Nitroaniline	ND	mg/kg	0.72	0.27	1	09/15/22 16:49	09/16/22 18:13	100-01-6	
Nitrobenzene	ND	mg/kg	0.36	0.17	1	09/15/22 16:49	09/16/22 18:13	98-95-3	
2-Nitrophenol	ND	mg/kg	0.36	0.16	1	09/15/22 16:49	09/16/22 18:13	88-75-5	
4-Nitrophenol	ND	mg/kg	1.8	0.70	1	09/15/22 16:49	09/16/22 18:13	100-02-7	
N-Nitrosodimethylamine	ND	mg/kg	0.36	0.12	1	09/15/22 16:49	09/16/22 18:13	62-75-9	
N-Nitroso-di-n-propylamine	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	621-64-7	
N-Nitrosodiphenylamine	ND	mg/kg	0.36	0.13	1	09/15/22 16:49	09/16/22 18:13	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.36	0.17	1	09/15/22 16:49	09/16/22 18:13	108-60-1	
Pentachlorophenol	ND	mg/kg	0.72	0.35	1	09/15/22 16:49	09/16/22 18:13	87-86-5	
Phenanthrene	ND	mg/kg	0.36	0.12	1	09/15/22 16:49	09/16/22 18:13	85-01-8	
Phenol	ND	mg/kg	0.36	0.16	1	09/15/22 16:49	09/16/22 18:13	108-95-2	
Pyrene	ND	mg/kg	0.36	0.15	1	09/15/22 16:49	09/16/22 18:13	129-00-0	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-13 (0-2)**      **Lab ID: 92624949002**      Collected: 09/06/22 11:25      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Pyridine	ND	mg/kg	0.36	0.11	1	09/15/22 16:49	09/16/22 18:13	110-86-1	
1,2,4-Trichlorobenzene	ND	mg/kg	0.36	0.14	1	09/15/22 16:49	09/16/22 18:13	120-82-1	
2,4,5-Trichlorophenol	ND	mg/kg	0.36	0.17	1	09/15/22 16:49	09/16/22 18:13	95-95-4	
2,4,6-Trichlorophenol	ND	mg/kg	0.36	0.15	1	09/15/22 16:49	09/16/22 18:13	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	50	%	10-130		1	09/15/22 16:49	09/16/22 18:13	4165-60-0	
2-Fluorobiphenyl (S)	54	%	10-130		1	09/15/22 16:49	09/16/22 18:13	321-60-8	
Terphenyl-d14 (S)	57	%	10-130		1	09/15/22 16:49	09/16/22 18:13	1718-51-0	
Phenol-d6 (S)	38	%	10-130		1	09/15/22 16:49	09/16/22 18:13	13127-88-3	
2-Fluorophenol (S)	37	%	10-130		1	09/15/22 16:49	09/16/22 18:13	367-12-4	
2,4,6-Tribromophenol (S)	62	%	10-131		1	09/15/22 16:49	09/16/22 18:13	118-79-6	
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D    Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
Acetone	ND	mg/kg	0.12	0.040	1	09/12/22 19:30	09/13/22 14:40	67-64-1	
Benzene	ND	mg/kg	0.0062	0.0025	1	09/12/22 19:30	09/13/22 14:40	71-43-2	
Bromobenzene	ND	mg/kg	0.0062	0.0020	1	09/12/22 19:30	09/13/22 14:40	108-86-1	
Bromochloromethane	ND	mg/kg	0.0062	0.0018	1	09/12/22 19:30	09/13/22 14:40	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0062	0.0024	1	09/12/22 19:30	09/13/22 14:40	75-27-4	
Bromoform	ND	mg/kg	0.0062	0.0022	1	09/12/22 19:30	09/13/22 14:40	75-25-2	
Bromomethane	ND	mg/kg	0.012	0.0098	1	09/12/22 19:30	09/13/22 14:40	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.12	0.030	1	09/12/22 19:30	09/13/22 14:40	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0062	0.0029	1	09/12/22 19:30	09/13/22 14:40	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0062	0.0027	1	09/12/22 19:30	09/13/22 14:40	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0062	0.0022	1	09/12/22 19:30	09/13/22 14:40	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0062	0.0023	1	09/12/22 19:30	09/13/22 14:40	56-23-5	
Chlorobenzene	<b>0.0036J</b>	mg/kg	0.0062	0.0012	1	09/12/22 19:30	09/13/22 14:40	108-90-7	
Chloroethane	ND	mg/kg	0.012	0.0048	1	09/12/22 19:30	09/13/22 14:40	75-00-3	
Chloroform	ND	mg/kg	0.0062	0.0038	1	09/12/22 19:30	09/13/22 14:40	67-66-3	
Chloromethane	ND	mg/kg	0.012	0.0052	1	09/12/22 19:30	09/13/22 14:40	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0062	0.0022	1	09/12/22 19:30	09/13/22 14:40	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0062	0.0011	1	09/12/22 19:30	09/13/22 14:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0062	0.0024	1	09/12/22 19:30	09/13/22 14:40	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0062	0.0035	1	09/12/22 19:30	09/13/22 14:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0062	0.0027	1	09/12/22 19:30	09/13/22 14:40	106-93-4	
Dibromomethane	ND	mg/kg	0.0062	0.0013	1	09/12/22 19:30	09/13/22 14:40	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0062	0.0022	1	09/12/22 19:30	09/13/22 14:40	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0062	0.0019	1	09/12/22 19:30	09/13/22 14:40	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0062	0.0016	1	09/12/22 19:30	09/13/22 14:40	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.012	0.0027	1	09/12/22 19:30	09/13/22 14:40	75-71-8	L1
1,1-Dichloroethane	ND	mg/kg	0.0062	0.0025	1	09/12/22 19:30	09/13/22 14:40	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0062	0.0041	1	09/12/22 19:30	09/13/22 14:40	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0062	0.0025	1	09/12/22 19:30	09/13/22 14:40	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0062	0.0021	1	09/12/22 19:30	09/13/22 14:40	156-59-2	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: HH-13 (0-2)**      **Lab ID: 92624949002**      Collected: 09/06/22 11:25      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D    Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
trans-1,2-Dichloroethene	ND	mg/kg	0.0062	0.0022	1	09/12/22 19:30	09/13/22 14:40	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0062	0.0019	1	09/12/22 19:30	09/13/22 14:40	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0062	0.0019	1	09/12/22 19:30	09/13/22 14:40	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0062	0.0020	1	09/12/22 19:30	09/13/22 14:40	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0062	0.0030	1	09/12/22 19:30	09/13/22 14:40	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0062	0.0017	1	09/12/22 19:30	09/13/22 14:40	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0062	0.0021	1	09/12/22 19:30	09/13/22 14:40	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0062	0.0017	1	09/12/22 19:30	09/13/22 14:40	108-20-3	
Ethylbenzene	<b>0.0047J</b>	mg/kg	0.0062	0.0029	1	09/12/22 19:30	09/13/22 14:40	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.012	0.010	1	09/12/22 19:30	09/13/22 14:40	87-68-3	
2-Hexanone	ND	mg/kg	0.062	0.0060	1	09/12/22 19:30	09/13/22 14:40	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0062	0.0021	1	09/12/22 19:30	09/13/22 14:40	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0062	0.0030	1	09/12/22 19:30	09/13/22 14:40	99-87-6	
Methylene Chloride	ND	mg/kg	0.025	0.017	1	09/12/22 19:30	09/13/22 14:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.062	0.0060	1	09/12/22 19:30	09/13/22 14:40	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0062	0.0023	1	09/12/22 19:30	09/13/22 14:40	1634-04-4	
Naphthalene	ND	mg/kg	0.0062	0.0032	1	09/12/22 19:30	09/13/22 14:40	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0062	0.0022	1	09/12/22 19:30	09/13/22 14:40	103-65-1	
Styrene	ND	mg/kg	0.0062	0.0016	1	09/12/22 19:30	09/13/22 14:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0062	0.0024	1	09/12/22 19:30	09/13/22 14:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0062	0.0016	1	09/12/22 19:30	09/13/22 14:40	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0062	0.0020	1	09/12/22 19:30	09/13/22 14:40	127-18-4	
Toluene	<b>0.0063</b>	mg/kg	0.0062	0.0018	1	09/12/22 19:30	09/13/22 14:40	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0062	0.0050	1	09/12/22 19:30	09/13/22 14:40	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0062	0.0052	1	09/12/22 19:30	09/13/22 14:40	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0062	0.0032	1	09/12/22 19:30	09/13/22 14:40	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0062	0.0020	1	09/12/22 19:30	09/13/22 14:40	79-00-5	
Trichloroethene	ND	mg/kg	0.0062	0.0016	1	09/12/22 19:30	09/13/22 14:40	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0062	0.0034	1	09/12/22 19:30	09/13/22 14:40	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0062	0.0031	1	09/12/22 19:30	09/13/22 14:40	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0062	0.0017	1	09/12/22 19:30	09/13/22 14:40	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0062	0.0021	1	09/12/22 19:30	09/13/22 14:40	108-67-8	
Vinyl acetate	ND	mg/kg	0.062	0.0045	1	09/12/22 19:30	09/13/22 14:40	108-05-4	L1,v1
Vinyl chloride	ND	mg/kg	0.012	0.0031	1	09/12/22 19:30	09/13/22 14:40	75-01-4	
Xylene (Total)	<b>0.017</b>	mg/kg	0.012	0.0035	1	09/12/22 19:30	09/13/22 14:40	1330-20-7	
m&p-Xylene	<b>0.0093J</b>	mg/kg	0.012	0.0042	1	09/12/22 19:30	09/13/22 14:40	179601-23-1	
o-Xylene	<b>0.0075</b>	mg/kg	0.0062	0.0027	1	09/12/22 19:30	09/13/22 14:40	95-47-6	
<b>Surrogates</b>									
Toluene-d8 (S)	101	%	70-130		1	09/12/22 19:30	09/13/22 14:40	2037-26-5	
4-Bromofluorobenzene (S)	104	%	70-130		1	09/12/22 19:30	09/13/22 14:40	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1	09/12/22 19:30	09/13/22 14:40	17060-07-0	

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### ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: HH-13 (0-2)**      **Lab ID: 92624949002**      Collected: 09/06/22 11:25      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>									
Analytical Method: SW-846 Pace Analytical Services - Charlotte									
Percent Moisture	<b>9.4</b>	%	0.10	0.10	1		09/12/22 17:06		N2
<b>Total Solids 2540 G-2011</b>									
Analytical Method: SM 2540G      Preparation Method: SM 2540 G Pace National - Mt. Juliet									
Total Solids	<b>91.2</b>	%			1	09/17/22 14:46	09/17/22 15:01		
<b>Wet Chemistry 7199</b>									
Analytical Method: EPA 7199      Preparation Method: 3060A Pace National - Mt. Juliet									
Chromium, Hexavalent	ND	mg/kg	1.10	0.280	1	09/20/22 20:42	09/23/22 14:36	18540-29-9	

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-14 (0-2)**      **Lab ID: 92624949003**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3050B									
Pace Analytical Services - Asheville									
Strontium	2.5	mg/kg	0.52	0.26	1	09/28/22 10:47	09/28/22 23:10	7440-24-6	
<b>6020B MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3050B									
Pace Analytical Services - Minneapolis									
Arsenic	2.0	mg/kg	0.60	0.17	1	09/26/22 10:54	09/28/22 17:16	7440-38-2	
Barium	51.6	mg/kg	0.36	0.090	1	09/26/22 10:54	09/28/22 00:51	7440-39-3	
Beryllium	0.42	mg/kg	0.24	0.061	1	09/26/22 10:54	09/28/22 00:51	7440-41-7	
Cadmium	ND	mg/kg	0.096	0.035	1	09/26/22 10:54	09/28/22 00:51	7440-43-9	
Chromium	7.5	mg/kg	2.4	0.46	1	09/26/22 10:54	09/28/22 00:51	7440-47-3	
Cobalt	2.3	mg/kg	0.60	0.16	1	09/26/22 10:54	09/28/22 00:51	7440-48-4	
Copper	9.5	mg/kg	1.2	0.37	1	09/26/22 10:54	09/28/22 00:51	7440-50-8	
Manganese	32.9	mg/kg	0.60	0.15	1	09/26/22 10:54	09/28/22 17:16	7439-96-5	
Nickel	2.1	mg/kg	0.60	0.28	1	09/26/22 10:54	09/28/22 00:51	7440-02-0	
Selenium	0.64	mg/kg	0.60	0.13	1	09/26/22 10:54	09/28/22 00:51	7782-49-2	
Thallium	0.096J	mg/kg	0.12	0.046	1	09/26/22 10:54	09/28/22 00:51	7440-28-0	
Vanadium	22.2	mg/kg	1.2	0.28	1	09/26/22 10:54	09/28/22 00:51	7440-62-2	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471B    Preparation Method: EPA 7471B									
Pace Analytical Services - Asheville									
Mercury	0.041	mg/kg	0.0068	0.0042	1	09/28/22 13:15	09/30/22 10:40	7439-97-6	
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	83-32-9	
Acenaphthylene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	208-96-8	
Aniline	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	62-53-3	
Anthracene	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 18:40	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 18:40	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 18:40	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	207-08-9	
Benzoic Acid	ND	mg/kg	2.0	0.85	1	09/15/22 16:49	09/16/22 18:40	65-85-0	
Benzyl alcohol	ND	mg/kg	0.79	0.30	1	09/15/22 16:49	09/16/22 18:40	100-51-6	
4-Bromophenylphenyl ether	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	101-55-3	
Butylbenzylphthalate	ND	mg/kg	0.40	0.17	1	09/15/22 16:49	09/16/22 18:40	85-68-7	
4-Chloro-3-methylphenol	ND	mg/kg	0.79	0.28	1	09/15/22 16:49	09/16/22 18:40	59-50-7	
4-Chloroaniline	ND	mg/kg	0.79	0.31	1	09/15/22 16:49	09/16/22 18:40	106-47-8	
bis(2-Chloroethoxy)methane	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	111-91-1	
bis(2-Chloroethyl) ether	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	111-44-4	
2-Chloronaphthalene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	91-58-7	
2-Chlorophenol	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	95-57-8	
4-Chlorophenylphenyl ether	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	7005-72-3	
Chrysene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	218-01-9	

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-14 (0-2)**      **Lab ID: 92624949003**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Dibenz(a,h)anthracene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	53-70-3	
Dibenzofuran	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	132-64-9	
1,2-Dichlorobenzene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	106-46-7	
3,3'-Dichlorobenzidine	ND	mg/kg	0.79	0.27	1	09/15/22 16:49	09/16/22 18:40	91-94-1	
2,4-Dichlorophenol	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	120-83-2	v1
Diethylphthalate	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	84-66-2	
2,4-Dimethylphenol	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	105-67-9	
Dimethylphthalate	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	131-11-3	
Di-n-butylphthalate	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 18:40	84-74-2	
4,6-Dinitro-2-methylphenol	ND	mg/kg	0.79	0.37	1	09/15/22 16:49	09/16/22 18:40	534-52-1	
2,4-Dinitrophenol	ND	mg/kg	2.0	1.2	1	09/15/22 16:49	09/16/22 18:40	51-28-5	
2,4-Dinitrotoluene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	121-14-2	
2,6-Dinitrotoluene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	606-20-2	
Di-n-octylphthalate	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	117-81-7	
Fluoranthene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	206-44-0	
Fluorene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	86-73-7	
Hexachloro-1,3-butadiene	ND	mg/kg	0.40	0.17	1	09/15/22 16:49	09/16/22 18:40	87-68-3	v1
Hexachlorobenzene	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	118-74-1	
Hexachlorocyclopentadiene	ND	mg/kg	0.40	0.23	1	09/15/22 16:49	09/16/22 18:40	77-47-4	
Hexachloroethane	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	193-39-5	
Isophorone	ND	mg/kg	0.40	0.18	1	09/15/22 16:49	09/16/22 18:40	78-59-1	
1-Methylnaphthalene	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	91-57-6	
2-Methylphenol(o-Cresol)	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	15831-10-4	
Naphthalene	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 18:40	91-20-3	
2-Nitroaniline	ND	mg/kg	2.0	0.32	1	09/15/22 16:49	09/16/22 18:40	88-74-4	
3-Nitroaniline	ND	mg/kg	2.0	0.31	1	09/15/22 16:49	09/16/22 18:40	99-09-2	
4-Nitroaniline	ND	mg/kg	0.79	0.30	1	09/15/22 16:49	09/16/22 18:40	100-01-6	
Nitrobenzene	ND	mg/kg	0.40	0.18	1	09/15/22 16:49	09/16/22 18:40	98-95-3	
2-Nitrophenol	ND	mg/kg	0.40	0.17	1	09/15/22 16:49	09/16/22 18:40	88-75-5	
4-Nitrophenol	ND	mg/kg	2.0	0.76	1	09/15/22 16:49	09/16/22 18:40	100-02-7	
N-Nitrosodimethylamine	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 18:40	62-75-9	
N-Nitroso-di-n-propylamine	ND	mg/kg	0.40	0.15	1	09/15/22 16:49	09/16/22 18:40	621-64-7	
N-Nitrosodiphenylamine	ND	mg/kg	0.40	0.14	1	09/15/22 16:49	09/16/22 18:40	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.40	0.19	1	09/15/22 16:49	09/16/22 18:40	108-60-1	
Pentachlorophenol	ND	mg/kg	0.79	0.39	1	09/15/22 16:49	09/16/22 18:40	87-86-5	
Phenanthrene	ND	mg/kg	0.40	0.13	1	09/15/22 16:49	09/16/22 18:40	85-01-8	
Phenol	ND	mg/kg	0.40	0.18	1	09/15/22 16:49	09/16/22 18:40	108-95-2	
Pyrene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	129-00-0	

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-14 (0-2)**      **Lab ID: 92624949003**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Pyridine	ND	mg/kg	0.40	0.12	1	09/15/22 16:49	09/16/22 18:40	110-86-1	
1,2,4-Trichlorobenzene	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	120-82-1	
2,4,5-Trichlorophenol	ND	mg/kg	0.40	0.18	1	09/15/22 16:49	09/16/22 18:40	95-95-4	
2,4,6-Trichlorophenol	ND	mg/kg	0.40	0.16	1	09/15/22 16:49	09/16/22 18:40	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	58	%	10-130		1	09/15/22 16:49	09/16/22 18:40	4165-60-0	
2-Fluorobiphenyl (S)	64	%	10-130		1	09/15/22 16:49	09/16/22 18:40	321-60-8	
Terphenyl-d14 (S)	68	%	10-130		1	09/15/22 16:49	09/16/22 18:40	1718-51-0	
Phenol-d6 (S)	43	%	10-130		1	09/15/22 16:49	09/16/22 18:40	13127-88-3	
2-Fluorophenol (S)	41	%	10-130		1	09/15/22 16:49	09/16/22 18:40	367-12-4	
2,4,6-Tribromophenol (S)	75	%	10-131		1	09/15/22 16:49	09/16/22 18:40	118-79-6	
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D    Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
Acetone	<b>0.067J</b>	mg/kg	0.15	0.048	1	09/12/22 19:30	09/13/22 14:57	67-64-1	
Benzene	ND	mg/kg	0.0075	0.0030	1	09/12/22 19:30	09/13/22 14:57	71-43-2	
Bromobenzene	ND	mg/kg	0.0075	0.0024	1	09/12/22 19:30	09/13/22 14:57	108-86-1	
Bromochloromethane	ND	mg/kg	0.0075	0.0022	1	09/12/22 19:30	09/13/22 14:57	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0075	0.0029	1	09/12/22 19:30	09/13/22 14:57	75-27-4	
Bromoform	ND	mg/kg	0.0075	0.0026	1	09/12/22 19:30	09/13/22 14:57	75-25-2	
Bromomethane	ND	mg/kg	0.015	0.012	1	09/12/22 19:30	09/13/22 14:57	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.15	0.036	1	09/12/22 19:30	09/13/22 14:57	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0075	0.0035	1	09/12/22 19:30	09/13/22 14:57	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0075	0.0033	1	09/12/22 19:30	09/13/22 14:57	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0075	0.0027	1	09/12/22 19:30	09/13/22 14:57	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0075	0.0028	1	09/12/22 19:30	09/13/22 14:57	56-23-5	
Chlorobenzene	<b>0.0042J</b>	mg/kg	0.0075	0.0014	1	09/12/22 19:30	09/13/22 14:57	108-90-7	
Chloroethane	ND	mg/kg	0.015	0.0058	1	09/12/22 19:30	09/13/22 14:57	75-00-3	
Chloroform	ND	mg/kg	0.0075	0.0046	1	09/12/22 19:30	09/13/22 14:57	67-66-3	
Chloromethane	ND	mg/kg	0.015	0.0063	1	09/12/22 19:30	09/13/22 14:57	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0075	0.0027	1	09/12/22 19:30	09/13/22 14:57	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0075	0.0013	1	09/12/22 19:30	09/13/22 14:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0075	0.0029	1	09/12/22 19:30	09/13/22 14:57	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0075	0.0042	1	09/12/22 19:30	09/13/22 14:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0075	0.0033	1	09/12/22 19:30	09/13/22 14:57	106-93-4	
Dibromomethane	ND	mg/kg	0.0075	0.0016	1	09/12/22 19:30	09/13/22 14:57	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0075	0.0027	1	09/12/22 19:30	09/13/22 14:57	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0075	0.0023	1	09/12/22 19:30	09/13/22 14:57	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0075	0.0019	1	09/12/22 19:30	09/13/22 14:57	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.015	0.0032	1	09/12/22 19:30	09/13/22 14:57	75-71-8	L1
1,1-Dichloroethane	ND	mg/kg	0.0075	0.0031	1	09/12/22 19:30	09/13/22 14:57	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0075	0.0050	1	09/12/22 19:30	09/13/22 14:57	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0075	0.0031	1	09/12/22 19:30	09/13/22 14:57	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0075	0.0026	1	09/12/22 19:30	09/13/22 14:57	156-59-2	

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-14 (0-2)**      **Lab ID: 92624949003**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D    Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
trans-1,2-Dichloroethene	ND	mg/kg	0.0075	0.0026	1	09/12/22 19:30	09/13/22 14:57	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0075	0.0022	1	09/12/22 19:30	09/13/22 14:57	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0075	0.0023	1	09/12/22 19:30	09/13/22 14:57	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0075	0.0024	1	09/12/22 19:30	09/13/22 14:57	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0075	0.0036	1	09/12/22 19:30	09/13/22 14:57	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0075	0.0020	1	09/12/22 19:30	09/13/22 14:57	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0075	0.0026	1	09/12/22 19:30	09/13/22 14:57	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0075	0.0020	1	09/12/22 19:30	09/13/22 14:57	108-20-3	
Ethylbenzene	ND	mg/kg	0.0075	0.0035	1	09/12/22 19:30	09/13/22 14:57	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.015	0.012	1	09/12/22 19:30	09/13/22 14:57	87-68-3	
2-Hexanone	ND	mg/kg	0.075	0.0072	1	09/12/22 19:30	09/13/22 14:57	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0075	0.0025	1	09/12/22 19:30	09/13/22 14:57	98-82-8	
p-Isopropyltoluene	<b>0.0065J</b>	mg/kg	0.0075	0.0037	1	09/12/22 19:30	09/13/22 14:57	99-87-6	
Methylene Chloride	ND	mg/kg	0.030	0.021	1	09/12/22 19:30	09/13/22 14:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.075	0.0072	1	09/12/22 19:30	09/13/22 14:57	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0075	0.0028	1	09/12/22 19:30	09/13/22 14:57	1634-04-4	
Naphthalene	ND	mg/kg	0.0075	0.0039	1	09/12/22 19:30	09/13/22 14:57	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0075	0.0027	1	09/12/22 19:30	09/13/22 14:57	103-65-1	
Styrene	ND	mg/kg	0.0075	0.0020	1	09/12/22 19:30	09/13/22 14:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0075	0.0029	1	09/12/22 19:30	09/13/22 14:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0075	0.0020	1	09/12/22 19:30	09/13/22 14:57	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0075	0.0024	1	09/12/22 19:30	09/13/22 14:57	127-18-4	
Toluene	<b>0.011</b>	mg/kg	0.0075	0.0021	1	09/12/22 19:30	09/13/22 14:57	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0075	0.0061	1	09/12/22 19:30	09/13/22 14:57	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0075	0.0063	1	09/12/22 19:30	09/13/22 14:57	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0075	0.0039	1	09/12/22 19:30	09/13/22 14:57	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0075	0.0025	1	09/12/22 19:30	09/13/22 14:57	79-00-5	
Trichloroethene	ND	mg/kg	0.0075	0.0019	1	09/12/22 19:30	09/13/22 14:57	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0075	0.0041	1	09/12/22 19:30	09/13/22 14:57	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0075	0.0038	1	09/12/22 19:30	09/13/22 14:57	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0075	0.0021	1	09/12/22 19:30	09/13/22 14:57	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0075	0.0025	1	09/12/22 19:30	09/13/22 14:57	108-67-8	
Vinyl acetate	ND	mg/kg	0.075	0.0055	1	09/12/22 19:30	09/13/22 14:57	108-05-4	L1,v1
Vinyl chloride	ND	mg/kg	0.015	0.0038	1	09/12/22 19:30	09/13/22 14:57	75-01-4	
Xylene (Total)	<b>0.017</b>	mg/kg	0.015	0.0043	1	09/12/22 19:30	09/13/22 14:57	1330-20-7	
m&p-Xylene	<b>0.0091J</b>	mg/kg	0.015	0.0051	1	09/12/22 19:30	09/13/22 14:57	179601-23-1	
o-Xylene	<b>0.0082</b>	mg/kg	0.0075	0.0033	1	09/12/22 19:30	09/13/22 14:57	95-47-6	
<b>Surrogates</b>									
Toluene-d8 (S)	101	%	70-130		1	09/12/22 19:30	09/13/22 14:57	2037-26-5	
4-Bromofluorobenzene (S)	102	%	70-130		1	09/12/22 19:30	09/13/22 14:57	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1	09/12/22 19:30	09/13/22 14:57	17060-07-0	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: HH-14 (0-2)**      **Lab ID: 92624949003**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>									
Analytical Method: SW-846 Pace Analytical Services - Charlotte									
Percent Moisture	<b>16.8</b>	%	0.10	0.10	1		09/12/22 17:06		N2
<b>Total Solids 2540 G-2011</b>									
Analytical Method: SM 2540G      Preparation Method: SM 2540 G Pace National - Mt. Juliet									
Total Solids	<b>87.6</b>	%			1	09/17/22 14:46	09/17/22 15:01		
<b>Wet Chemistry 7199</b>									
Analytical Method: EPA 7199      Preparation Method: 3060A Pace National - Mt. Juliet									
Chromium, Hexavalent	<b>0.356J</b>	mg/kg	1.14	0.291	1	09/20/22 20:42	09/23/22 14:56	18540-29-9	J,ML

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### ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: HH-15 (0-2)**      **Lab ID: 92624949004**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3050B									
Pace Analytical Services - Asheville									
Strontium	<b>9.1</b>	mg/kg	0.54	0.27	1	09/14/22 10:13	09/18/22 21:40	7440-24-6	
<b>6020B MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3050B									
Pace Analytical Services - Minneapolis									
Arsenic	<b>0.76</b>	mg/kg	0.53	0.15	1	09/26/22 10:54	09/28/22 17:27	7440-38-2	
Barium	<b>31.0</b>	mg/kg	0.32	0.080	1	09/26/22 10:54	09/28/22 00:54	7440-39-3	
Beryllium	<b>0.27</b>	mg/kg	0.21	0.054	1	09/26/22 10:54	09/28/22 00:54	7440-41-7	
Cadmium	ND	mg/kg	0.086	0.031	1	09/26/22 10:54	09/28/22 00:54	7440-43-9	
Chromium	<b>1.6J</b>	mg/kg	2.1	0.42	1	09/26/22 10:54	09/28/22 00:54	7440-47-3	
Cobalt	<b>1.6</b>	mg/kg	0.53	0.14	1	09/26/22 10:54	09/28/22 00:54	7440-48-4	
Copper	<b>6.6</b>	mg/kg	1.1	0.33	1	09/26/22 10:54	09/28/22 00:54	7440-50-8	
Manganese	<b>105</b>	mg/kg	0.53	0.14	1	09/26/22 10:54	09/28/22 17:27	7439-96-5	
Nickel	<b>1.0</b>	mg/kg	0.53	0.25	1	09/26/22 10:54	09/28/22 00:54	7440-02-0	
Selenium	<b>0.20J</b>	mg/kg	0.53	0.11	1	09/26/22 10:54	09/28/22 00:54	7782-49-2	
Thallium	<b>0.043J</b>	mg/kg	0.11	0.041	1	09/26/22 10:54	09/28/22 00:54	7440-28-0	
Vanadium	<b>15.9</b>	mg/kg	1.1	0.25	1	09/26/22 10:54	09/28/22 00:54	7440-62-2	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471B    Preparation Method: EPA 7471B									
Pace Analytical Services - Asheville									
Mercury	<b>0.021</b>	mg/kg	0.0064	0.0049	1	09/19/22 08:20	09/20/22 09:41	7439-97-6	
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	83-32-9	
Acenaphthylene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	208-96-8	
Aniline	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	62-53-3	
Anthracene	ND	mg/kg	0.37	0.12	1	09/15/22 16:49	09/16/22 19:08	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.37	0.12	1	09/15/22 16:49	09/16/22 19:08	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.37	0.12	1	09/15/22 16:49	09/16/22 19:08	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	207-08-9	
Benzoic Acid	ND	mg/kg	1.8	0.78	1	09/15/22 16:49	09/16/22 19:08	65-85-0	
Benzyl alcohol	ND	mg/kg	0.73	0.28	1	09/15/22 16:49	09/16/22 19:08	100-51-6	
4-Bromophenylphenyl ether	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	101-55-3	
Butylbenzylphthalate	ND	mg/kg	0.37	0.15	1	09/15/22 16:49	09/16/22 19:08	85-68-7	
4-Chloro-3-methylphenol	ND	mg/kg	0.73	0.26	1	09/15/22 16:49	09/16/22 19:08	59-50-7	
4-Chloroaniline	ND	mg/kg	0.73	0.29	1	09/15/22 16:49	09/16/22 19:08	106-47-8	
bis(2-Chloroethoxy)methane	ND	mg/kg	0.37	0.15	1	09/15/22 16:49	09/16/22 19:08	111-91-1	
bis(2-Chloroethyl) ether	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	111-44-4	
2-Chloronaphthalene	ND	mg/kg	0.37	0.15	1	09/15/22 16:49	09/16/22 19:08	91-58-7	
2-Chlorophenol	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	95-57-8	
4-Chlorophenylphenyl ether	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	7005-72-3	
Chrysene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	218-01-9	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

Sample: HH-15 (0-2) Lab ID: 92624949004 Collected: 09/06/22 00:00 Received: 09/12/22 11:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Dibenz(a,h)anthracene	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	53-70-3	
Dibenzofuran	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	132-64-9	
1,2-Dichlorobenzene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	106-46-7	
3,3'-Dichlorobenzidine	ND	mg/kg	0.73	0.25	1	09/15/22 16:49	09/16/22 19:08	91-94-1	
2,4-Dichlorophenol	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	120-83-2	v1
Diethylphthalate	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	84-66-2	
2,4-Dimethylphenol	ND	mg/kg	0.37	0.15	1	09/15/22 16:49	09/16/22 19:08	105-67-9	
Dimethylphthalate	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	131-11-3	
Di-n-butylphthalate	ND	mg/kg	0.37	0.12	1	09/15/22 16:49	09/16/22 19:08	84-74-2	
4,6-Dinitro-2-methylphenol	ND	mg/kg	0.73	0.34	1	09/15/22 16:49	09/16/22 19:08	534-52-1	
2,4-Dinitrophenol	ND	mg/kg	1.8	1.1	1	09/15/22 16:49	09/16/22 19:08	51-28-5	
2,4-Dinitrotoluene	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	121-14-2	
2,6-Dinitrotoluene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	606-20-2	
Di-n-octylphthalate	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	117-81-7	
Fluoranthene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	206-44-0	
Fluorene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	86-73-7	
Hexachloro-1,3-butadiene	ND	mg/kg	0.37	0.16	1	09/15/22 16:49	09/16/22 19:08	87-68-3	v1
Hexachlorobenzene	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	118-74-1	
Hexachlorocyclopentadiene	ND	mg/kg	0.37	0.21	1	09/15/22 16:49	09/16/22 19:08	77-47-4	
Hexachloroethane	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	193-39-5	
Isophorone	ND	mg/kg	0.37	0.16	1	09/15/22 16:49	09/16/22 19:08	78-59-1	
1-Methylnaphthalene	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.37	0.15	1	09/15/22 16:49	09/16/22 19:08	91-57-6	
2-Methylphenol(o-Cresol)	ND	mg/kg	0.37	0.15	1	09/15/22 16:49	09/16/22 19:08	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.37	0.15	1	09/15/22 16:49	09/16/22 19:08	15831-10-4	
Naphthalene	ND	mg/kg	0.37	0.12	1	09/15/22 16:49	09/16/22 19:08	91-20-3	
2-Nitroaniline	ND	mg/kg	1.8	0.30	1	09/15/22 16:49	09/16/22 19:08	88-74-4	
3-Nitroaniline	ND	mg/kg	1.8	0.29	1	09/15/22 16:49	09/16/22 19:08	99-09-2	
4-Nitroaniline	ND	mg/kg	0.73	0.28	1	09/15/22 16:49	09/16/22 19:08	100-01-6	
Nitrobenzene	ND	mg/kg	0.37	0.17	1	09/15/22 16:49	09/16/22 19:08	98-95-3	
2-Nitrophenol	ND	mg/kg	0.37	0.16	1	09/15/22 16:49	09/16/22 19:08	88-75-5	
4-Nitrophenol	ND	mg/kg	1.8	0.71	1	09/15/22 16:49	09/16/22 19:08	100-02-7	
N-Nitrosodimethylamine	ND	mg/kg	0.37	0.12	1	09/15/22 16:49	09/16/22 19:08	62-75-9	
N-Nitroso-di-n-propylamine	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	621-64-7	
N-Nitrosodiphenylamine	ND	mg/kg	0.37	0.13	1	09/15/22 16:49	09/16/22 19:08	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.37	0.17	1	09/15/22 16:49	09/16/22 19:08	108-60-1	
Pentachlorophenol	ND	mg/kg	0.73	0.36	1	09/15/22 16:49	09/16/22 19:08	87-86-5	
Phenanthrene	ND	mg/kg	0.37	0.12	1	09/15/22 16:49	09/16/22 19:08	85-01-8	
Phenol	ND	mg/kg	0.37	0.16	1	09/15/22 16:49	09/16/22 19:08	108-95-2	
Pyrene	ND	mg/kg	0.37	0.15	1	09/15/22 16:49	09/16/22 19:08	129-00-0	

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-15 (0-2)**      **Lab ID: 92624949004**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Pyridine	ND	mg/kg	0.37	0.12	1	09/15/22 16:49	09/16/22 19:08	110-86-1	
1,2,4-Trichlorobenzene	ND	mg/kg	0.37	0.14	1	09/15/22 16:49	09/16/22 19:08	120-82-1	
2,4,5-Trichlorophenol	ND	mg/kg	0.37	0.17	1	09/15/22 16:49	09/16/22 19:08	95-95-4	
2,4,6-Trichlorophenol	ND	mg/kg	0.37	0.15	1	09/15/22 16:49	09/16/22 19:08	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	60	%	10-130		1	09/15/22 16:49	09/16/22 19:08	4165-60-0	
2-Fluorobiphenyl (S)	71	%	10-130		1	09/15/22 16:49	09/16/22 19:08	321-60-8	
Terphenyl-d14 (S)	81	%	10-130		1	09/15/22 16:49	09/16/22 19:08	1718-51-0	
Phenol-d6 (S)	49	%	10-130		1	09/15/22 16:49	09/16/22 19:08	13127-88-3	
2-Fluorophenol (S)	46	%	10-130		1	09/15/22 16:49	09/16/22 19:08	367-12-4	
2,4,6-Tribromophenol (S)	90	%	10-131		1	09/15/22 16:49	09/16/22 19:08	118-79-6	
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D    Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
Acetone	<b>0.056J</b>	mg/kg	0.15	0.049	1	09/12/22 19:30	09/13/22 15:15	67-64-1	
Benzene	ND	mg/kg	0.0077	0.0031	1	09/12/22 19:30	09/13/22 15:15	71-43-2	
Bromobenzene	ND	mg/kg	0.0077	0.0025	1	09/12/22 19:30	09/13/22 15:15	108-86-1	
Bromochloromethane	ND	mg/kg	0.0077	0.0023	1	09/12/22 19:30	09/13/22 15:15	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0077	0.0030	1	09/12/22 19:30	09/13/22 15:15	75-27-4	
Bromoform	ND	mg/kg	0.0077	0.0027	1	09/12/22 19:30	09/13/22 15:15	75-25-2	
Bromomethane	ND	mg/kg	0.015	0.012	1	09/12/22 19:30	09/13/22 15:15	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.15	0.037	1	09/12/22 19:30	09/13/22 15:15	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0077	0.0036	1	09/12/22 19:30	09/13/22 15:15	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0077	0.0034	1	09/12/22 19:30	09/13/22 15:15	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0077	0.0027	1	09/12/22 19:30	09/13/22 15:15	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0077	0.0029	1	09/12/22 19:30	09/13/22 15:15	56-23-5	
Chlorobenzene	<b>0.0044J</b>	mg/kg	0.0077	0.0015	1	09/12/22 19:30	09/13/22 15:15	108-90-7	
Chloroethane	ND	mg/kg	0.015	0.0059	1	09/12/22 19:30	09/13/22 15:15	75-00-3	
Chloroform	ND	mg/kg	0.0077	0.0047	1	09/12/22 19:30	09/13/22 15:15	67-66-3	
Chloromethane	ND	mg/kg	0.015	0.0065	1	09/12/22 19:30	09/13/22 15:15	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0077	0.0027	1	09/12/22 19:30	09/13/22 15:15	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0077	0.0014	1	09/12/22 19:30	09/13/22 15:15	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0077	0.0030	1	09/12/22 19:30	09/13/22 15:15	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0077	0.0043	1	09/12/22 19:30	09/13/22 15:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0077	0.0034	1	09/12/22 19:30	09/13/22 15:15	106-93-4	
Dibromomethane	ND	mg/kg	0.0077	0.0016	1	09/12/22 19:30	09/13/22 15:15	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0077	0.0028	1	09/12/22 19:30	09/13/22 15:15	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0077	0.0024	1	09/12/22 19:30	09/13/22 15:15	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0077	0.0020	1	09/12/22 19:30	09/13/22 15:15	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.015	0.0033	1	09/12/22 19:30	09/13/22 15:15	75-71-8	L1
1,1-Dichloroethane	ND	mg/kg	0.0077	0.0032	1	09/12/22 19:30	09/13/22 15:15	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0077	0.0051	1	09/12/22 19:30	09/13/22 15:15	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0077	0.0032	1	09/12/22 19:30	09/13/22 15:15	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0077	0.0026	1	09/12/22 19:30	09/13/22 15:15	156-59-2	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: HH-15 (0-2)**      **Lab ID: 92624949004**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D    Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
trans-1,2-Dichloroethene	ND	mg/kg	0.0077	0.0027	1	09/12/22 19:30	09/13/22 15:15	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0077	0.0023	1	09/12/22 19:30	09/13/22 15:15	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0077	0.0024	1	09/12/22 19:30	09/13/22 15:15	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0077	0.0025	1	09/12/22 19:30	09/13/22 15:15	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0077	0.0037	1	09/12/22 19:30	09/13/22 15:15	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0077	0.0021	1	09/12/22 19:30	09/13/22 15:15	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0077	0.0027	1	09/12/22 19:30	09/13/22 15:15	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0077	0.0021	1	09/12/22 19:30	09/13/22 15:15	108-20-3	
Ethylbenzene	<b>0.0056J</b>	mg/kg	0.0077	0.0036	1	09/12/22 19:30	09/13/22 15:15	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.015	0.013	1	09/12/22 19:30	09/13/22 15:15	87-68-3	
2-Hexanone	ND	mg/kg	0.077	0.0074	1	09/12/22 19:30	09/13/22 15:15	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0077	0.0026	1	09/12/22 19:30	09/13/22 15:15	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0077	0.0038	1	09/12/22 19:30	09/13/22 15:15	99-87-6	
Methylene Chloride	ND	mg/kg	0.031	0.021	1	09/12/22 19:30	09/13/22 15:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.077	0.0074	1	09/12/22 19:30	09/13/22 15:15	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0077	0.0029	1	09/12/22 19:30	09/13/22 15:15	1634-04-4	
Naphthalene	ND	mg/kg	0.0077	0.0041	1	09/12/22 19:30	09/13/22 15:15	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0077	0.0027	1	09/12/22 19:30	09/13/22 15:15	103-65-1	
Styrene	ND	mg/kg	0.0077	0.0020	1	09/12/22 19:30	09/13/22 15:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0077	0.0030	1	09/12/22 19:30	09/13/22 15:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0077	0.0020	1	09/12/22 19:30	09/13/22 15:15	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0077	0.0024	1	09/12/22 19:30	09/13/22 15:15	127-18-4	
Toluene	<b>0.0072J</b>	mg/kg	0.0077	0.0022	1	09/12/22 19:30	09/13/22 15:15	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0077	0.0062	1	09/12/22 19:30	09/13/22 15:15	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0077	0.0065	1	09/12/22 19:30	09/13/22 15:15	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0077	0.0040	1	09/12/22 19:30	09/13/22 15:15	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0077	0.0026	1	09/12/22 19:30	09/13/22 15:15	79-00-5	
Trichloroethene	ND	mg/kg	0.0077	0.0020	1	09/12/22 19:30	09/13/22 15:15	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0077	0.0042	1	09/12/22 19:30	09/13/22 15:15	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0077	0.0039	1	09/12/22 19:30	09/13/22 15:15	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0077	0.0021	1	09/12/22 19:30	09/13/22 15:15	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0077	0.0026	1	09/12/22 19:30	09/13/22 15:15	108-67-8	
Vinyl acetate	ND	mg/kg	0.077	0.0056	1	09/12/22 19:30	09/13/22 15:15	108-05-4	L1,v1
Vinyl chloride	ND	mg/kg	0.015	0.0039	1	09/12/22 19:30	09/13/22 15:15	75-01-4	
Xylene (Total)	<b>0.019</b>	mg/kg	0.015	0.0044	1	09/12/22 19:30	09/13/22 15:15	1330-20-7	
m&p-Xylene	<b>0.010J</b>	mg/kg	0.015	0.0053	1	09/12/22 19:30	09/13/22 15:15	179601-23-1	
o-Xylene	<b>0.0081</b>	mg/kg	0.0077	0.0034	1	09/12/22 19:30	09/13/22 15:15	95-47-6	
<b>Surrogates</b>									
Toluene-d8 (S)	101	%	70-130		1	09/12/22 19:30	09/13/22 15:15	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1	09/12/22 19:30	09/13/22 15:15	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1	09/12/22 19:30	09/13/22 15:15	17060-07-0	

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### ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: HH-15 (0-2)**      **Lab ID: 92624949004**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>									
Analytical Method: SW-846 Pace Analytical Services - Charlotte									
Percent Moisture	<b>9.1</b>	%	0.10	0.10	1		09/12/22 17:06		N2
<b>Total Solids 2540 G-2011</b>									
Analytical Method: SM 2540G      Preparation Method: SM 2540 G Pace National - Mt. Juliet									
Total Solids	<b>81.5</b>	%			1	09/17/22 14:46	09/17/22 15:01		
<b>Wet Chemistry 7199</b>									
Analytical Method: EPA 7199      Preparation Method: 3060A Pace National - Mt. Juliet									
Chromium, Hexavalent	ND	mg/kg	1.23	0.313	1	09/20/22 20:42	09/23/22 15:22	18540-29-9	

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample:** HH-DUP      **Lab ID:** 92624949005      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3050B									
Pace Analytical Services - Asheville									
Strontium	2.0	mg/kg	0.58	0.29	1	09/14/22 10:13	09/18/22 21:58	7440-24-6	
<b>6020B MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3050B									
Pace Analytical Services - Minneapolis									
Arsenic	1.4	mg/kg	0.54	0.15	1	09/26/22 10:54	09/28/22 17:31	7440-38-2	
Barium	38.7	mg/kg	0.32	0.081	1	09/26/22 10:54	09/28/22 00:58	7440-39-3	
Beryllium	0.34	mg/kg	0.22	0.055	1	09/26/22 10:54	09/28/22 00:58	7440-41-7	
Cadmium	ND	mg/kg	0.086	0.032	1	09/26/22 10:54	09/28/22 00:58	7440-43-9	
Chromium	4.4	mg/kg	2.2	0.42	1	09/26/22 10:54	09/28/22 00:58	7440-47-3	
Cobalt	1.6	mg/kg	0.54	0.14	1	09/26/22 10:54	09/28/22 00:58	7440-48-4	
Copper	5.3	mg/kg	1.1	0.33	1	09/26/22 10:54	09/28/22 00:58	7440-50-8	
Manganese	48.3	mg/kg	0.54	0.14	1	09/26/22 10:54	09/28/22 17:31	7439-96-5	
Nickel	1.2	mg/kg	0.54	0.25	1	09/26/22 10:54	09/28/22 00:58	7440-02-0	
Selenium	0.33J	mg/kg	0.54	0.11	1	09/26/22 10:54	09/28/22 00:58	7782-49-2	
Thallium	0.056J	mg/kg	0.11	0.042	1	09/26/22 10:54	09/28/22 00:58	7440-28-0	
Vanadium	14.7	mg/kg	1.1	0.26	1	09/26/22 10:54	09/28/22 00:58	7440-62-2	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471B    Preparation Method: EPA 7471B									
Pace Analytical Services - Asheville									
Mercury	0.016	mg/kg	0.0068	0.0052	1	09/19/22 08:20	09/20/22 09:43	7439-97-6	
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	83-32-9	
Acenaphthylene	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	208-96-8	
Aniline	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	62-53-3	
Anthracene	ND	mg/kg	0.39	0.13	1	09/15/22 16:49	09/16/22 19:35	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.39	0.13	1	09/15/22 16:49	09/16/22 19:35	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.39	0.13	1	09/15/22 16:49	09/16/22 19:35	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.39	0.13	1	09/15/22 16:49	09/16/22 19:35	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	207-08-9	
Benzoic Acid	ND	mg/kg	1.9	0.83	1	09/15/22 16:49	09/16/22 19:35	65-85-0	
Benzyl alcohol	ND	mg/kg	0.78	0.29	1	09/15/22 16:49	09/16/22 19:35	100-51-6	
4-Bromophenylphenyl ether	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	101-55-3	
Butylbenzylphthalate	ND	mg/kg	0.39	0.16	1	09/15/22 16:49	09/16/22 19:35	85-68-7	
4-Chloro-3-methylphenol	ND	mg/kg	0.78	0.27	1	09/15/22 16:49	09/16/22 19:35	59-50-7	
4-Chloroaniline	ND	mg/kg	0.78	0.30	1	09/15/22 16:49	09/16/22 19:35	106-47-8	
bis(2-Chloroethoxy)methane	ND	mg/kg	0.39	0.16	1	09/15/22 16:49	09/16/22 19:35	111-91-1	
bis(2-Chloroethyl) ether	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	111-44-4	
2-Chloronaphthalene	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	91-58-7	
2-Chlorophenol	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	95-57-8	
4-Chlorophenylphenyl ether	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	7005-72-3	
Chrysene	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	218-01-9	

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-DUP**      **Lab ID: 92624949005**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Dibenz(a,h)anthracene	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	53-70-3	
Dibenzofuran	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	132-64-9	
1,2-Dichlorobenzene	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	106-46-7	
3,3'-Dichlorobenzidine	ND	mg/kg	0.78	0.26	1	09/15/22 16:49	09/16/22 19:35	91-94-1	
2,4-Dichlorophenol	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	120-83-2	v1
Diethylphthalate	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	84-66-2	
2,4-Dimethylphenol	ND	mg/kg	0.39	0.16	1	09/15/22 16:49	09/16/22 19:35	105-67-9	
Dimethylphthalate	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	131-11-3	
Di-n-butylphthalate	ND	mg/kg	0.39	0.13	1	09/15/22 16:49	09/16/22 19:35	84-74-2	
4,6-Dinitro-2-methylphenol	ND	mg/kg	0.78	0.36	1	09/15/22 16:49	09/16/22 19:35	534-52-1	
2,4-Dinitrophenol	ND	mg/kg	1.9	1.2	1	09/15/22 16:49	09/16/22 19:35	51-28-5	
2,4-Dinitrotoluene	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	121-14-2	
2,6-Dinitrotoluene	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	606-20-2	
Di-n-octylphthalate	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	117-81-7	
Fluoranthene	ND	mg/kg	0.39	0.13	1	09/15/22 16:49	09/16/22 19:35	206-44-0	
Fluorene	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	86-73-7	
Hexachloro-1,3-butadiene	ND	mg/kg	0.39	0.17	1	09/15/22 16:49	09/16/22 19:35	87-68-3	v1
Hexachlorobenzene	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	118-74-1	
Hexachlorocyclopentadiene	ND	mg/kg	0.39	0.22	1	09/15/22 16:49	09/16/22 19:35	77-47-4	
Hexachloroethane	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	193-39-5	
Isophorone	ND	mg/kg	0.39	0.17	1	09/15/22 16:49	09/16/22 19:35	78-59-1	
1-Methylnaphthalene	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.39	0.16	1	09/15/22 16:49	09/16/22 19:35	91-57-6	
2-Methylphenol(o-Cresol)	ND	mg/kg	0.39	0.16	1	09/15/22 16:49	09/16/22 19:35	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	mg/kg	0.39	0.16	1	09/15/22 16:49	09/16/22 19:35	15831-10-4	
Naphthalene	ND	mg/kg	0.39	0.13	1	09/15/22 16:49	09/16/22 19:35	91-20-3	
2-Nitroaniline	ND	mg/kg	1.9	0.32	1	09/15/22 16:49	09/16/22 19:35	88-74-4	
3-Nitroaniline	ND	mg/kg	1.9	0.30	1	09/15/22 16:49	09/16/22 19:35	99-09-2	
4-Nitroaniline	ND	mg/kg	0.78	0.30	1	09/15/22 16:49	09/16/22 19:35	100-01-6	
Nitrobenzene	ND	mg/kg	0.39	0.18	1	09/15/22 16:49	09/16/22 19:35	98-95-3	
2-Nitrophenol	ND	mg/kg	0.39	0.17	1	09/15/22 16:49	09/16/22 19:35	88-75-5	
4-Nitrophenol	ND	mg/kg	1.9	0.75	1	09/15/22 16:49	09/16/22 19:35	100-02-7	
N-Nitrosodimethylamine	ND	mg/kg	0.39	0.13	1	09/15/22 16:49	09/16/22 19:35	62-75-9	
N-Nitroso-di-n-propylamine	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	621-64-7	
N-Nitrosodiphenylamine	ND	mg/kg	0.39	0.14	1	09/15/22 16:49	09/16/22 19:35	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.39	0.18	1	09/15/22 16:49	09/16/22 19:35	108-60-1	
Pentachlorophenol	ND	mg/kg	0.78	0.38	1	09/15/22 16:49	09/16/22 19:35	87-86-5	
Phenanthrene	ND	mg/kg	0.39	0.13	1	09/15/22 16:49	09/16/22 19:35	85-01-8	
Phenol	ND	mg/kg	0.39	0.17	1	09/15/22 16:49	09/16/22 19:35	108-95-2	
Pyrene	ND	mg/kg	0.39	0.16	1	09/15/22 16:49	09/16/22 19:35	129-00-0	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-DUP**      **Lab ID: 92624949005**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV Microwave</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3546									
Pace Analytical Services - Charlotte									
Pyridine	ND	mg/kg	0.39	0.12	1	09/15/22 16:49	09/16/22 19:35	110-86-1	
1,2,4-Trichlorobenzene	ND	mg/kg	0.39	0.15	1	09/15/22 16:49	09/16/22 19:35	120-82-1	
2,4,5-Trichlorophenol	ND	mg/kg	0.39	0.18	1	09/15/22 16:49	09/16/22 19:35	95-95-4	
2,4,6-Trichlorophenol	ND	mg/kg	0.39	0.16	1	09/15/22 16:49	09/16/22 19:35	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	61	%	10-130		1	09/15/22 16:49	09/16/22 19:35	4165-60-0	
2-Fluorobiphenyl (S)	73	%	10-130		1	09/15/22 16:49	09/16/22 19:35	321-60-8	
Terphenyl-d14 (S)	74	%	10-130		1	09/15/22 16:49	09/16/22 19:35	1718-51-0	
Phenol-d6 (S)	48	%	10-130		1	09/15/22 16:49	09/16/22 19:35	13127-88-3	
2-Fluorophenol (S)	43	%	10-130		1	09/15/22 16:49	09/16/22 19:35	367-12-4	
2,4,6-Tribromophenol (S)	83	%	10-131		1	09/15/22 16:49	09/16/22 19:35	118-79-6	
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D    Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
Acetone	ND	mg/kg	0.16	0.053	1	09/12/22 19:30	09/13/22 15:33	67-64-1	
Benzene	ND	mg/kg	0.0082	0.0033	1	09/12/22 19:30	09/13/22 15:33	71-43-2	
Bromobenzene	ND	mg/kg	0.0082	0.0027	1	09/12/22 19:30	09/13/22 15:33	108-86-1	
Bromochloromethane	ND	mg/kg	0.0082	0.0024	1	09/12/22 19:30	09/13/22 15:33	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0082	0.0032	1	09/12/22 19:30	09/13/22 15:33	75-27-4	
Bromoform	ND	mg/kg	0.0082	0.0029	1	09/12/22 19:30	09/13/22 15:33	75-25-2	
Bromomethane	ND	mg/kg	0.016	0.013	1	09/12/22 19:30	09/13/22 15:33	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.16	0.039	1	09/12/22 19:30	09/13/22 15:33	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0082	0.0039	1	09/12/22 19:30	09/13/22 15:33	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0082	0.0036	1	09/12/22 19:30	09/13/22 15:33	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0082	0.0029	1	09/12/22 19:30	09/13/22 15:33	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0082	0.0031	1	09/12/22 19:30	09/13/22 15:33	56-23-5	
Chlorobenzene	<b>0.0047J</b>	mg/kg	0.0082	0.0016	1	09/12/22 19:30	09/13/22 15:33	108-90-7	
Chloroethane	ND	mg/kg	0.016	0.0063	1	09/12/22 19:30	09/13/22 15:33	75-00-3	
Chloroform	ND	mg/kg	0.0082	0.0050	1	09/12/22 19:30	09/13/22 15:33	67-66-3	
Chloromethane	ND	mg/kg	0.016	0.0069	1	09/12/22 19:30	09/13/22 15:33	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0082	0.0029	1	09/12/22 19:30	09/13/22 15:33	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0082	0.0015	1	09/12/22 19:30	09/13/22 15:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0082	0.0032	1	09/12/22 19:30	09/13/22 15:33	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0082	0.0046	1	09/12/22 19:30	09/13/22 15:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0082	0.0036	1	09/12/22 19:30	09/13/22 15:33	106-93-4	
Dibromomethane	ND	mg/kg	0.0082	0.0018	1	09/12/22 19:30	09/13/22 15:33	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0082	0.0030	1	09/12/22 19:30	09/13/22 15:33	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0082	0.0025	1	09/12/22 19:30	09/13/22 15:33	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0082	0.0021	1	09/12/22 19:30	09/13/22 15:33	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.016	0.0036	1	09/12/22 19:30	09/13/22 15:33	75-71-8	L1
1,1-Dichloroethane	ND	mg/kg	0.0082	0.0034	1	09/12/22 19:30	09/13/22 15:33	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0082	0.0054	1	09/12/22 19:30	09/13/22 15:33	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0082	0.0034	1	09/12/22 19:30	09/13/22 15:33	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0082	0.0028	1	09/12/22 19:30	09/13/22 15:33	156-59-2	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

Sample: HH-DUP Lab ID: 92624949005 Collected: 09/06/22 00:00 Received: 09/12/22 11:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260D/5035A/5030B Volatiles</b>									
Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Charlotte									
trans-1,2-Dichloroethene	ND	mg/kg	0.0082	0.0029	1	09/12/22 19:30	09/13/22 15:33	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0082	0.0025	1	09/12/22 19:30	09/13/22 15:33	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0082	0.0026	1	09/12/22 19:30	09/13/22 15:33	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0082	0.0027	1	09/12/22 19:30	09/13/22 15:33	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0082	0.0039	1	09/12/22 19:30	09/13/22 15:33	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0082	0.0022	1	09/12/22 19:30	09/13/22 15:33	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0082	0.0028	1	09/12/22 19:30	09/13/22 15:33	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0082	0.0022	1	09/12/22 19:30	09/13/22 15:33	108-20-3	
Ethylbenzene	<b>0.0057J</b>	mg/kg	0.0082	0.0038	1	09/12/22 19:30	09/13/22 15:33	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.016	0.013	1	09/12/22 19:30	09/13/22 15:33	87-68-3	
2-Hexanone	ND	mg/kg	0.082	0.0079	1	09/12/22 19:30	09/13/22 15:33	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0082	0.0028	1	09/12/22 19:30	09/13/22 15:33	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0082	0.0040	1	09/12/22 19:30	09/13/22 15:33	99-87-6	
Methylene Chloride	ND	mg/kg	0.033	0.022	1	09/12/22 19:30	09/13/22 15:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.082	0.0079	1	09/12/22 19:30	09/13/22 15:33	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0082	0.0031	1	09/12/22 19:30	09/13/22 15:33	1634-04-4	
Naphthalene	ND	mg/kg	0.0082	0.0043	1	09/12/22 19:30	09/13/22 15:33	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0082	0.0029	1	09/12/22 19:30	09/13/22 15:33	103-65-1	
Styrene	ND	mg/kg	0.0082	0.0022	1	09/12/22 19:30	09/13/22 15:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0082	0.0031	1	09/12/22 19:30	09/13/22 15:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0082	0.0022	1	09/12/22 19:30	09/13/22 15:33	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0082	0.0026	1	09/12/22 19:30	09/13/22 15:33	127-18-4	
Toluene	<b>0.0083</b>	mg/kg	0.0082	0.0023	1	09/12/22 19:30	09/13/22 15:33	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0082	0.0066	1	09/12/22 19:30	09/13/22 15:33	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0082	0.0069	1	09/12/22 19:30	09/13/22 15:33	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0082	0.0043	1	09/12/22 19:30	09/13/22 15:33	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0082	0.0027	1	09/12/22 19:30	09/13/22 15:33	79-00-5	
Trichloroethene	ND	mg/kg	0.0082	0.0021	1	09/12/22 19:30	09/13/22 15:33	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0082	0.0045	1	09/12/22 19:30	09/13/22 15:33	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0082	0.0041	1	09/12/22 19:30	09/13/22 15:33	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0082	0.0022	1	09/12/22 19:30	09/13/22 15:33	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0082	0.0028	1	09/12/22 19:30	09/13/22 15:33	108-67-8	
Vinyl acetate	ND	mg/kg	0.082	0.0060	1	09/12/22 19:30	09/13/22 15:33	108-05-4	L1,v1
Vinyl chloride	ND	mg/kg	0.016	0.0042	1	09/12/22 19:30	09/13/22 15:33	75-01-4	
Xylene (Total)	<b>0.021</b>	mg/kg	0.016	0.0047	1	09/12/22 19:30	09/13/22 15:33	1330-20-7	
m&p-Xylene	<b>0.012J</b>	mg/kg	0.016	0.0056	1	09/12/22 19:30	09/13/22 15:33	179601-23-1	
o-Xylene	<b>0.0094</b>	mg/kg	0.0082	0.0036	1	09/12/22 19:30	09/13/22 15:33	95-47-6	
<b>Surrogates</b>									
Toluene-d8 (S)	102	%	70-130		1	09/12/22 19:30	09/13/22 15:33	2037-26-5	
4-Bromofluorobenzene (S)	104	%	70-130		1	09/12/22 19:30	09/13/22 15:33	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1	09/12/22 19:30	09/13/22 15:33	17060-07-0	

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### ANALYTICAL RESULTS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

**Sample: HH-DUP**      **Lab ID: 92624949005**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>									
Analytical Method: SW-846 Pace Analytical Services - Charlotte									
Percent Moisture	<b>15.1</b>	%	0.10	0.10	1		09/12/22 17:07		N2
<b>Total Solids 2540 G-2011</b>									
Analytical Method: SM 2540G      Preparation Method: SM 2540 G Pace National - Mt. Juliet									
Total Solids	<b>72.2</b>	%			1	09/17/22 14:46	09/17/22 15:01		
<b>Wet Chemistry 7199</b>									
Analytical Method: EPA 7199      Preparation Method: 3060A Pace National - Mt. Juliet									
Chromium, Hexavalent	<b>0.537J</b>	mg/kg	1.38	0.353	1	09/20/22 20:42	09/23/22 15:27	18540-29-9	J

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### ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

Sample: TRIP BLANK Lab ID: 92624949006 Collected: 09/06/22 00:00 Received: 09/12/22 11:50 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b> Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
Acetone	74.3	ug/L	25.0	5.1	1		09/15/22 04:30	67-64-1	C0
Benzene	ND	ug/L	1.0	0.34	1		09/15/22 04:30	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/15/22 04:30	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/15/22 04:30	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/15/22 04:30	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/15/22 04:30	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/15/22 04:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/15/22 04:30	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.49	1		09/15/22 04:30	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.40	1		09/15/22 04:30	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.32	1		09/15/22 04:30	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/15/22 04:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/15/22 04:30	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/15/22 04:30	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/15/22 04:30	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/15/22 04:30	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/15/22 04:30	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/15/22 04:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/15/22 04:30	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/15/22 04:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/15/22 04:30	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/15/22 04:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/15/22 04:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/15/22 04:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/15/22 04:30	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/15/22 04:30	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/15/22 04:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/15/22 04:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/15/22 04:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/15/22 04:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/15/22 04:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/15/22 04:30	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/15/22 04:30	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/15/22 04:30	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/15/22 04:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/15/22 04:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/15/22 04:30	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/15/22 04:30	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/15/22 04:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/15/22 04:30	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/15/22 04:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.33	1		09/15/22 04:30	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/15/22 04:30	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/15/22 04:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/15/22 04:30	108-10-1	

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### ANALYTICAL RESULTS

Project: TCH-009 SOIL

Pace Project No.: 92624949

**Sample: TRIP BLANK**      **Lab ID: 92624949006**      Collected: 09/06/22 00:00      Received: 09/12/22 11:50      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/15/22 04:30	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/15/22 04:30	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.34	1		09/15/22 04:30	103-65-1	
Styrene	ND	ug/L	1.0	0.29	1		09/15/22 04:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/15/22 04:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/15/22 04:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/15/22 04:30	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/15/22 04:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/15/22 04:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/15/22 04:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/15/22 04:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/15/22 04:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/15/22 04:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/15/22 04:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/15/22 04:30	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.50	1		09/15/22 04:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.33	1		09/15/22 04:30	108-67-8	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/15/22 04:30	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/15/22 04:30	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/15/22 04:30	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/15/22 04:30	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/15/22 04:30	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98	%	70-130		1		09/15/22 04:30	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		09/15/22 04:30	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		09/15/22 04:30	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

QC Batch: 723847

Analysis Method: EPA 7471B

QC Batch Method: EPA 7471B

Analysis Description: 7471 Mercury

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92624949001, 92624949002, 92624949004, 92624949005

METHOD BLANK: 3771738

Matrix: Solid

Associated Lab Samples: 92624949001, 92624949002, 92624949004, 92624949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.0060	0.0046	09/20/22 09:08	

LABORATORY CONTROL SAMPLE: 3771739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.083	0.086	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3771740 3771741

Parameter	Units	92624739001		3771740		3771741		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Mercury	mg/kg	ND	0.091	0.091	0.095	0.10	98	104	75-125	5	20

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

QC Batch: 726077

Analysis Method: EPA 7471B

QC Batch Method: EPA 7471B

Analysis Description: 7471 Mercury

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92624949003

METHOD BLANK: 3781971

Matrix: Solid

Associated Lab Samples: 92624949003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.0060	0.0037	09/30/22 10:36	

LABORATORY CONTROL SAMPLE: 3781972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.083	0.083	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3781973 3781974

Parameter	Units	92624949003		3781974		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/kg	0.041	0.091	0.091	0.12	0.12	86	86	75-125	1	20

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**QUALITY CONTROL DATA**

Project: TCH-009 SOIL

Pace Project No.: 92624949

QC Batch: 723149

Analysis Method: EPA 6010D

QC Batch Method: EPA 3050B

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92624949001, 92624949002, 92624949004, 92624949005

METHOD BLANK: 3767746

Matrix: Solid

Associated Lab Samples: 92624949001, 92624949002, 92624949004, 92624949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Strontium	mg/kg	ND	0.50	0.25	09/18/22 20:48	

LABORATORY CONTROL SAMPLE: 3767747

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Strontium	mg/kg	50	49.1	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3767748 3767749

Parameter	Units	3767748		3767749		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92625251001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Strontium	mg/kg	197	85.4	82.3	300	289	121	112	75-125	4	20

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

QC Batch: 726356	Analysis Method: EPA 6010D
QC Batch Method: EPA 3050B	Analysis Description: 6010 MET
	Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92624949003

METHOD BLANK: 3783192 Matrix: Solid  
Associated Lab Samples: 92624949003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Strontium	mg/kg	ND	0.50	0.25	09/28/22 22:56	

LABORATORY CONTROL SAMPLE: 3783193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Strontium	mg/kg	50	50.3	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3783194 3783195

Parameter	Units	3783194		3783195		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92624949003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Strontium	mg/kg	2.5	51.8	51.8	52.1	52.8	96	97	75-125	1	20

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

QC Batch: 842051 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3050B Analysis Description: 6020B Solids UPD5  
Laboratory: Pace Analytical Services - Minneapolis  
Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

METHOD BLANK: 4456583 Matrix: Solid  
Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	ND	0.46	0.13	09/28/22 16:46	
Barium	mg/kg	ND	0.27	0.069	09/28/22 00:02	
Beryllium	mg/kg	ND	0.18	0.047	09/28/22 00:02	
Cadmium	mg/kg	ND	0.073	0.027	09/28/22 00:02	
Chromium	mg/kg	ND	1.8	0.36	09/28/22 00:02	
Cobalt	mg/kg	ND	0.46	0.12	09/28/22 00:02	
Copper	mg/kg	ND	0.92	0.28	09/28/22 00:02	
Manganese	mg/kg	ND	0.46	0.12	09/28/22 16:46	
Nickel	mg/kg	ND	0.46	0.21	09/28/22 00:02	
Selenium	mg/kg	ND	0.46	0.096	09/28/22 00:02	
Thallium	mg/kg	ND	0.092	0.035	09/28/22 00:02	
Vanadium	mg/kg	ND	0.92	0.22	09/28/22 00:02	

LABORATORY CONTROL SAMPLE: 4456584

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	48.4	43.3	89	80-120	
Barium	mg/kg	48.4	39.1	81	80-120	
Beryllium	mg/kg	48.4	43.8	90	80-120	
Cadmium	mg/kg	48.4	40.1	83	80-120	
Chromium	mg/kg	48.4	40.6	84	80-120	
Cobalt	mg/kg	48.4	41.4	85	80-120	
Copper	mg/kg	48.4	41.3	85	80-120	
Manganese	mg/kg	48.4	43.7	90	80-120	
Nickel	mg/kg	48.4	41.8	86	80-120	
Selenium	mg/kg	48.4	45.5	94	80-120	
Thallium	mg/kg	48.4	40.9	84	80-120	
Vanadium	mg/kg	48.4	40.8	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4456585 4456586

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92626001001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Arsenic	mg/kg	1.1	59.8	62.3	54.8	56.0	90	88	75-125	2	20	
Barium	mg/kg	17.6	59.8	62.3	66.4	74.2	82	91	75-125	11	20	
Beryllium	mg/kg	ND	59.8	62.3	51.9	56.1	87	90	75-125	8	20	
Cadmium	mg/kg	ND	59.8	62.3	45.5	54.6	76	88	75-125	18	20	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4456585 4456586												
Parameter	Units	92626001001		MS		MSD		MS		MSD		
		Result	Conc.	Spike	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
											Max RPD	Qual
Chromium	mg/kg	3.2	59.8	62.3	50.1	59.0	79	90	75-125	16	20	
Cobalt	mg/kg	ND	59.8	62.3	47.2	56.0	78	89	75-125	17	20	
Copper	mg/kg	2.3	59.8	62.3	49.1	58.4	78	90	75-125	17	20	
Manganese	mg/kg	50.8	59.8	62.3	126	110	126	96	75-125	13	20	M1
Nickel	mg/kg	1.9	59.8	62.3	48.8	57.9	78	90	75-125	17	20	
Selenium	mg/kg	ND	59.8	62.3	53.4	58.0	89	93	75-125	8	20	
Thallium	mg/kg	ND	59.8	62.3	45.7	54.2	76	87	75-125	17	20	
Vanadium	mg/kg	4.8	59.8	62.3	51.6	61.1	78	91	75-125	17	20	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

QC Batch: 722800 Analysis Method: EPA 8260D  
QC Batch Method: EPA 5035A/5030B Analysis Description: 8260D 5035A 5030B  
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

METHOD BLANK: 3766184 Matrix: Solid  
Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0050	0.0019	09/13/22 09:40	
1,1,1-Trichloroethane	mg/kg	ND	0.0050	0.0026	09/13/22 09:40	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0050	0.0013	09/13/22 09:40	
1,1,2-Trichloroethane	mg/kg	ND	0.0050	0.0017	09/13/22 09:40	
1,1-Dichloroethane	mg/kg	ND	0.0050	0.0021	09/13/22 09:40	
1,1-Dichloroethene	mg/kg	ND	0.0050	0.0021	09/13/22 09:40	
1,1-Dichloropropene	mg/kg	ND	0.0050	0.0024	09/13/22 09:40	
1,2,3-Trichlorobenzene	mg/kg	ND	0.0050	0.0040	09/13/22 09:40	
1,2,3-Trichloropropane	mg/kg	ND	0.0050	0.0025	09/13/22 09:40	
1,2,4-Trichlorobenzene	mg/kg	ND	0.0050	0.0042	09/13/22 09:40	
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	0.0014	09/13/22 09:40	
1,2-Dibromo-3-chloropropane	mg/kg	ND	0.0050	0.0019	09/13/22 09:40	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0050	0.0022	09/13/22 09:40	
1,2-Dichlorobenzene	mg/kg	ND	0.0050	0.0018	09/13/22 09:40	
1,2-Dichloroethane	mg/kg	ND	0.0050	0.0033	09/13/22 09:40	
1,2-Dichloropropane	mg/kg	ND	0.0050	0.0015	09/13/22 09:40	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	0.0017	09/13/22 09:40	
1,3-Dichlorobenzene	mg/kg	ND	0.0050	0.0016	09/13/22 09:40	
1,3-Dichloropropane	mg/kg	ND	0.0050	0.0016	09/13/22 09:40	
1,4-Dichlorobenzene	mg/kg	ND	0.0050	0.0013	09/13/22 09:40	
2,2-Dichloropropane	mg/kg	ND	0.0050	0.0016	09/13/22 09:40	
2-Butanone (MEK)	mg/kg	ND	0.10	0.024	09/13/22 09:40	
2-Chlorotoluene	mg/kg	ND	0.0050	0.0018	09/13/22 09:40	
2-Hexanone	mg/kg	ND	0.050	0.0048	09/13/22 09:40	
4-Chlorotoluene	mg/kg	ND	0.0050	0.00088	09/13/22 09:40	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.050	0.0048	09/13/22 09:40	
Acetone	mg/kg	ND	0.10	0.032	09/13/22 09:40	
Benzene	mg/kg	ND	0.0050	0.0020	09/13/22 09:40	
Bromobenzene	mg/kg	ND	0.0050	0.0016	09/13/22 09:40	
Bromochloromethane	mg/kg	ND	0.0050	0.0015	09/13/22 09:40	
Bromodichloromethane	mg/kg	ND	0.0050	0.0019	09/13/22 09:40	
Bromoform	mg/kg	ND	0.0050	0.0018	09/13/22 09:40	
Bromomethane	mg/kg	ND	0.010	0.0079	09/13/22 09:40	
Carbon tetrachloride	mg/kg	ND	0.0050	0.0019	09/13/22 09:40	
Chlorobenzene	mg/kg	ND	0.0050	0.00096	09/13/22 09:40	
Chloroethane	mg/kg	ND	0.010	0.0039	09/13/22 09:40	
Chloroform	mg/kg	ND	0.0050	0.0030	09/13/22 09:40	
Chloromethane	mg/kg	ND	0.010	0.0042	09/13/22 09:40	
cis-1,2-Dichloroethene	mg/kg	ND	0.0050	0.0017	09/13/22 09:40	
cis-1,3-Dichloropropene	mg/kg	ND	0.0050	0.0014	09/13/22 09:40	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

METHOD BLANK: 3766184

Matrix: Solid

Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	mg/kg	ND	0.0050	0.0028	09/13/22 09:40	
Dibromomethane	mg/kg	ND	0.0050	0.0011	09/13/22 09:40	
Dichlorodifluoromethane	mg/kg	ND	0.010	0.0022	09/13/22 09:40	
Diisopropyl ether	mg/kg	ND	0.0050	0.0014	09/13/22 09:40	
Ethylbenzene	mg/kg	ND	0.0050	0.0023	09/13/22 09:40	
Hexachloro-1,3-butadiene	mg/kg	ND	0.010	0.0082	09/13/22 09:40	
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	0.0017	09/13/22 09:40	
m&p-Xylene	mg/kg	ND	0.010	0.0034	09/13/22 09:40	
Methyl-tert-butyl ether	mg/kg	ND	0.0050	0.0019	09/13/22 09:40	
Methylene Chloride	mg/kg	ND	0.020	0.014	09/13/22 09:40	
n-Butylbenzene	mg/kg	ND	0.0050	0.0024	09/13/22 09:40	
n-Propylbenzene	mg/kg	ND	0.0050	0.0018	09/13/22 09:40	
Naphthalene	mg/kg	ND	0.0050	0.0026	09/13/22 09:40	
o-Xylene	mg/kg	ND	0.0050	0.0022	09/13/22 09:40	
p-Isopropyltoluene	mg/kg	ND	0.0050	0.0025	09/13/22 09:40	
sec-Butylbenzene	mg/kg	ND	0.0050	0.0022	09/13/22 09:40	
Styrene	mg/kg	ND	0.0050	0.0013	09/13/22 09:40	
tert-Butylbenzene	mg/kg	ND	0.0050	0.0018	09/13/22 09:40	
Tetrachloroethene	mg/kg	ND	0.0050	0.0016	09/13/22 09:40	
Toluene	mg/kg	ND	0.0050	0.0014	09/13/22 09:40	
trans-1,2-Dichloroethene	mg/kg	ND	0.0050	0.0018	09/13/22 09:40	
trans-1,3-Dichloropropene	mg/kg	ND	0.0050	0.0017	09/13/22 09:40	
Trichloroethene	mg/kg	ND	0.0050	0.0013	09/13/22 09:40	
Trichlorofluoromethane	mg/kg	ND	0.0050	0.0028	09/13/22 09:40	
Vinyl acetate	mg/kg	ND	0.050	0.0036	09/13/22 09:40	v1
Vinyl chloride	mg/kg	ND	0.010	0.0025	09/13/22 09:40	
Xylene (Total)	mg/kg	ND	0.010	0.0028	09/13/22 09:40	
1,2-Dichloroethane-d4 (S)	%	113	70-130		09/13/22 09:40	
4-Bromofluorobenzene (S)	%	100	70-130		09/13/22 09:40	
Toluene-d8 (S)	%	101	70-130		09/13/22 09:40	

LABORATORY CONTROL SAMPLE: 3766185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	1.2	1.3	105	70-130	
1,1,1-Trichloroethane	mg/kg	1.2	1.3	102	70-130	
1,1,2,2-Tetrachloroethane	mg/kg	1.2	1.3	103	70-130	
1,1,2-Trichloroethane	mg/kg	1.2	1.3	100	70-130	
1,1-Dichloroethane	mg/kg	1.2	1.3	100	70-130	
1,1-Dichloroethene	mg/kg	1.2	1.4	110	70-130	
1,1-Dichloropropene	mg/kg	1.2	1.4	109	70-130	
1,2,3-Trichlorobenzene	mg/kg	1.2	1.2	97	70-130	
1,2,3-Trichloropropane	mg/kg	1.2	1.3	100	70-130	
1,2,4-Trichlorobenzene	mg/kg	1.2	1.2	99	70-130	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

LABORATORY CONTROL SAMPLE: 3766185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	mg/kg	1.2	1.3	102	70-130	
1,2-Dibromo-3-chloropropane	mg/kg	1.2	1.2	94	67-130	
1,2-Dibromoethane (EDB)	mg/kg	1.2	1.3	100	70-130	
1,2-Dichlorobenzene	mg/kg	1.2	1.3	101	70-130	
1,2-Dichloroethane	mg/kg	1.2	1.4	112	70-130	
1,2-Dichloropropane	mg/kg	1.2	1.2	99	70-130	
1,3,5-Trimethylbenzene	mg/kg	1.2	1.3	101	70-130	
1,3-Dichlorobenzene	mg/kg	1.2	1.3	103	70-130	
1,3-Dichloropropane	mg/kg	1.2	1.3	102	70-130	
1,4-Dichlorobenzene	mg/kg	1.2	1.3	100	70-130	
2,2-Dichloropropane	mg/kg	1.2	1.2	94	67-130	
2-Butanone (MEK)	mg/kg	2.5	2.5	100	66-130	
2-Chlorotoluene	mg/kg	1.2	1.3	102	70-130	
2-Hexanone	mg/kg	2.5	2.7	107	70-130	
4-Chlorotoluene	mg/kg	1.2	1.3	101	70-130	
4-Methyl-2-pentanone (MIBK)	mg/kg	2.5	2.7	108	70-130	
Acetone	mg/kg	2.5	2.4	96	67-130	
Benzene	mg/kg	1.2	1.2	95	70-130	
Bromobenzene	mg/kg	1.2	1.2	100	70-130	
Bromochloromethane	mg/kg	1.2	1.2	100	70-130	
Bromodichloromethane	mg/kg	1.2	1.3	101	70-130	
Bromoform	mg/kg	1.2	1.3	105	70-130	
Bromomethane	mg/kg	1.2	1.5	120	53-175	
Carbon tetrachloride	mg/kg	1.2	1.2	98	70-130	
Chlorobenzene	mg/kg	1.2	1.3	104	70-130	
Chloroethane	mg/kg	1.2	1.3	107	70-135	
Chloroform	mg/kg	1.2	1.2	99	70-130	
Chloromethane	mg/kg	1.2	1.3	103	64-130	
cis-1,2-Dichloroethene	mg/kg	1.2	1.3	105	70-130	
cis-1,3-Dichloropropene	mg/kg	1.2	1.3	100	70-130	
Dibromochloromethane	mg/kg	1.2	1.2	100	70-130	
Dibromomethane	mg/kg	1.2	1.3	103	70-130	
Dichlorodifluoromethane	mg/kg	1.2	1.9	148	63-145 L1	
Diisopropyl ether	mg/kg	1.2	1.2	100	68-130	
Ethylbenzene	mg/kg	1.2	1.2	98	70-130	
Hexachloro-1,3-butadiene	mg/kg	1.2	1.2	99	70-130	
Isopropylbenzene (Cumene)	mg/kg	1.2	1.3	101	70-130	
m&p-Xylene	mg/kg	2.5	2.7	106	70-130	
Methyl-tert-butyl ether	mg/kg	1.2	1.2	98	70-130	
Methylene Chloride	mg/kg	1.2	1.2	100	67-130	
n-Butylbenzene	mg/kg	1.2	1.3	106	70-130	
n-Propylbenzene	mg/kg	1.2	1.3	101	70-130	
Naphthalene	mg/kg	1.2	1.2	99	70-130	
o-Xylene	mg/kg	1.2	1.3	100	70-130	
p-Isopropyltoluene	mg/kg	1.2	1.3	104	70-130	
sec-Butylbenzene	mg/kg	1.2	1.3	101	70-130	
Styrene	mg/kg	1.2	1.3	103	70-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

LABORATORY CONTROL SAMPLE: 3766185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butylbenzene	mg/kg	1.2	1.2	98	64-130	
Tetrachloroethene	mg/kg	1.2	1.2	98	70-130	
Toluene	mg/kg	1.2	1.2	99	70-130	
trans-1,2-Dichloroethene	mg/kg	1.2	1.3	107	70-130	
trans-1,3-Dichloropropene	mg/kg	1.2	1.3	104	70-130	
Trichloroethene	mg/kg	1.2	1.3	103	70-130	
Trichlorofluoromethane	mg/kg	1.2	1.4	114	70-130	
Vinyl acetate	mg/kg	2.5	3.4	136	70-134 L1,v1	
Vinyl chloride	mg/kg	1.2	1.5	117	68-130	
Xylene (Total)	mg/kg	3.8	3.9	104	70-130	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE SAMPLE: 3766186

Parameter	Units	92624871003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.56	0.69	123	58-140	
1,1,1-Trichloroethane	mg/kg	ND	0.56	0.76	135	58-144	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.56	0.66	117	52-139	
1,1,2-Trichloroethane	mg/kg	ND	0.56	0.66	117	56-140	
1,1-Dichloroethane	mg/kg	ND	0.56	0.71	125	58-145	
1,1-Dichloroethene	mg/kg	ND	0.56	0.86	152	57-158	
1,1-Dichloropropene	mg/kg	ND	0.56	0.83	146	58-151	
1,2,3-Trichlorobenzene	mg/kg	ND	0.56	0.23	41	48-149 M1	
1,2,3-Trichloropropane	mg/kg	ND	0.56	0.63	112	54-132	
1,2,4-Trichlorobenzene	mg/kg	ND	0.56	0.46	81	51-151	
1,2,4-Trimethylbenzene	mg/kg	ND	0.56	0.72	128	38-170	
1,2-Dibromo-3-chloropropane	mg/kg	ND	0.56	0.44	78	44-134	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.56	0.65	115	60-138	
1,2-Dichlorobenzene	mg/kg	ND	0.56	0.71	126	59-147	
1,2-Dichloroethane	mg/kg	ND	0.56	0.77	136	57-139	
1,2-Dichloropropane	mg/kg	ND	0.56	0.71	126	62-145	
1,3,5-Trimethylbenzene	mg/kg	ND	0.56	0.73	130	47-159	
1,3-Dichlorobenzene	mg/kg	ND	0.56	0.72	127	58-144	
1,3-Dichloropropane	mg/kg	ND	0.56	0.68	121	60-142	
1,4-Dichlorobenzene	mg/kg	ND	0.56	0.72	127	57-143	
2,2-Dichloropropane	mg/kg	ND	0.56	0.69	122	37-144	
2-Butanone (MEK)	mg/kg	ND	1.1	1.3	108	28-146	
2-Chlorotoluene	mg/kg	ND	0.56	0.72	128	55-158	
2-Hexanone	mg/kg	ND	1.1	1.3	116	44-141	
4-Chlorotoluene	mg/kg	ND	0.56	0.71	126	55-146	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	1.1	1.4	121	50-138	
Acetone	mg/kg	ND	1.1	1.1	99	20-136	
Benzene	mg/kg	ND	0.56	0.70	124	60-145	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

MATRIX SPIKE SAMPLE: 3766186		92624871003	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Bromobenzene	mg/kg	ND	0.56	0.69	122	59-145	
Bromochloromethane	mg/kg	ND	0.56	0.67	118	57-143	
Bromodichloromethane	mg/kg	ND	0.56	0.66	117	53-133	
Bromoform	mg/kg	ND	0.56	0.60	106	48-133	
Bromomethane	mg/kg	ND	0.56	0.28	50	10-167	
Carbon tetrachloride	mg/kg	ND	0.56	0.66	116	57-147	
Chlorobenzene	mg/kg	ND	0.56	0.72	128	61-144	
Chloroethane	mg/kg	ND	0.56	0.16	28	10-153	
Chloroform	mg/kg	ND	0.56	0.71	125	58-141	
Chloromethane	mg/kg	ND	0.56	0.75	133	54-165	
cis-1,2-Dichloroethene	mg/kg	ND	0.56	0.75	133	59-144	
cis-1,3-Dichloropropene	mg/kg	ND	0.56	0.68	120	56-137	
Dibromochloromethane	mg/kg	ND	0.56	0.61	107	53-139	
Dibromomethane	mg/kg	ND	0.56	0.67	118	60-136	
Dichlorodifluoromethane	mg/kg	ND	0.56	1.1	202	49-177 MO	
Diisopropyl ether	mg/kg	ND	0.56	0.72	127	53-136	
Ethylbenzene	mg/kg	ND	0.56	0.71	125	53-150	
Hexachloro-1,3-butadiene	mg/kg	ND	0.56	0.72	128	42-186	
Isopropylbenzene (Cumene)	mg/kg	ND	0.56	0.74	130	62-154	
m&p-Xylene	mg/kg	ND	1.1	1.5	134	49-156	
Methyl-tert-butyl ether	mg/kg	ND	0.56	0.68	121	54-133	
Methylene Chloride	mg/kg	ND	0.56	0.69	122	50-153	
n-Butylbenzene	mg/kg	ND	0.56	0.79	139	44-174	
n-Propylbenzene	mg/kg	ND	0.56	0.74	130	52-157	
Naphthalene	mg/kg	ND	0.56	0.24	43	37-150	
o-Xylene	mg/kg	ND	0.56	0.71	125	54-150	
p-Isopropyltoluene	mg/kg	ND	0.56	0.77	136	50-164	
sec-Butylbenzene	mg/kg	ND	0.56	0.77	136	58-161	
Styrene	mg/kg	0.028	0.56	0.74	126	60-148	
tert-Butylbenzene	mg/kg	ND	0.56	0.74	130	44-151	
Tetrachloroethene	mg/kg	ND	0.56	0.70	123	53-151	
Toluene	mg/kg	7.5 ug/kg	0.56	0.74	130	52-148	
trans-1,2-Dichloroethene	mg/kg	ND	0.56	0.79	140	60-148	
trans-1,3-Dichloropropene	mg/kg	ND	0.56	0.68	120	55-133	
Trichloroethene	mg/kg	ND	0.56	0.76	135	60-148	
Trichlorofluoromethane	mg/kg	ND	0.56	0.19	33	10-154	
Vinyl acetate	mg/kg	ND	1.1	1.5	133	50-149 v1	
Vinyl chloride	mg/kg	ND	0.56	0.83	146	57-157	
Xylene (Total)	mg/kg	ND	1.7	2.2	131	52-153	
1,2-Dichloroethane-d4 (S)	%				109	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				100	70-130	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

SAMPLE DUPLICATE: 3766187

Parameter	Units	92624871004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	ND		30	
1,1,1-Trichloroethane	mg/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	mg/kg	ND	ND		30	
1,1,2-Trichloroethane	mg/kg	ND	ND		30	
1,1-Dichloroethane	mg/kg	ND	ND		30	
1,1-Dichloroethene	mg/kg	ND	ND		30	
1,1-Dichloropropene	mg/kg	ND	ND		30	
1,2,3-Trichlorobenzene	mg/kg	ND	ND		30	
1,2,3-Trichloropropane	mg/kg	ND	ND		30	
1,2,4-Trichlorobenzene	mg/kg	ND	ND		30	
1,2,4-Trimethylbenzene	mg/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	mg/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	mg/kg	ND	ND		30	
1,2-Dichlorobenzene	mg/kg	ND	ND		30	
1,2-Dichloroethane	mg/kg	ND	ND		30	
1,2-Dichloropropane	mg/kg	ND	ND		30	
1,3,5-Trimethylbenzene	mg/kg	ND	ND		30	
1,3-Dichlorobenzene	mg/kg	ND	ND		30	
1,3-Dichloropropane	mg/kg	ND	ND		30	
1,4-Dichlorobenzene	mg/kg	ND	ND		30	
2,2-Dichloropropane	mg/kg	ND	ND		30	
2-Butanone (MEK)	mg/kg	ND	0.050J		30	
2-Chlorotoluene	mg/kg	ND	ND		30	
2-Hexanone	mg/kg	ND	ND		30	
4-Chlorotoluene	mg/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	ND		30	
Acetone	mg/kg	ND	ND		30	
Benzene	mg/kg	ND	ND		30	
Bromobenzene	mg/kg	ND	ND		30	
Bromochloromethane	mg/kg	ND	ND		30	
Bromodichloromethane	mg/kg	ND	ND		30	
Bromoform	mg/kg	ND	ND		30	
Bromomethane	mg/kg	ND	ND		30	
Carbon tetrachloride	mg/kg	ND	ND		30	
Chlorobenzene	mg/kg	ND	ND		30	
Chloroethane	mg/kg	ND	ND		30	
Chloroform	mg/kg	ND	ND		30	
Chloromethane	mg/kg	ND	ND		30	
cis-1,2-Dichloroethene	mg/kg	ND	ND		30	
cis-1,3-Dichloropropene	mg/kg	ND	ND		30	
Dibromochloromethane	mg/kg	ND	ND		30	
Dibromomethane	mg/kg	ND	ND		30	
Dichlorodifluoromethane	mg/kg	ND	ND		30	
Diisopropyl ether	mg/kg	ND	ND		30	
Ethylbenzene	mg/kg	ND	ND		30	
Hexachloro-1,3-butadiene	mg/kg	ND	ND		30	
Isopropylbenzene (Cumene)	mg/kg	ND	ND		30	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

SAMPLE DUPLICATE: 3766187

Parameter	Units	92624871004 Result	Dup Result	RPD	Max RPD	Qualifiers
m&p-Xylene	mg/kg	ND	ND		30	
Methyl-tert-butyl ether	mg/kg	ND	ND		30	
Methylene Chloride	mg/kg	ND	ND		30	
n-Butylbenzene	mg/kg	ND	ND		30	
n-Propylbenzene	mg/kg	ND	ND		30	
Naphthalene	mg/kg	ND	ND		30	
o-Xylene	mg/kg	ND	ND		30	
p-Isopropyltoluene	mg/kg	ND	ND		30	
sec-Butylbenzene	mg/kg	ND	ND		30	
Styrene	mg/kg	0.035	0.037	6	30	
tert-Butylbenzene	mg/kg	ND	ND		30	
Tetrachloroethene	mg/kg	ND	ND		30	
Toluene	mg/kg	ND	0.0065J		30	
trans-1,2-Dichloroethene	mg/kg	ND	ND		30	
trans-1,3-Dichloropropene	mg/kg	ND	ND		30	
Trichloroethene	mg/kg	ND	ND		30	
Trichlorofluoromethane	mg/kg	ND	ND		30	
Vinyl acetate	mg/kg	ND	ND		30 v1	
Vinyl chloride	mg/kg	ND	ND		30	
Xylene (Total)	mg/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	110	108			
4-Bromofluorobenzene (S)	%	103	103			
Toluene-d8 (S)	%	101	101			

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

QC Batch: 723258 Analysis Method: EPA 8260D  
QC Batch Method: EPA 8260D Analysis Description: 8260D MSV Low Level  
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92624949006

METHOD BLANK: 3768366 Matrix: Water  
Associated Lab Samples: 92624949006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.31	09/15/22 03:53	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.33	09/15/22 03:53	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.22	09/15/22 03:53	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.32	09/15/22 03:53	
1,1-Dichloroethane	ug/L	ND	1.0	0.37	09/15/22 03:53	
1,1-Dichloroethene	ug/L	ND	1.0	0.35	09/15/22 03:53	
1,1-Dichloropropene	ug/L	ND	1.0	0.43	09/15/22 03:53	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.81	09/15/22 03:53	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.26	09/15/22 03:53	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.64	09/15/22 03:53	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.50	09/15/22 03:53	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	0.34	09/15/22 03:53	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	09/15/22 03:53	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.34	09/15/22 03:53	
1,2-Dichloroethane	ug/L	ND	1.0	0.32	09/15/22 03:53	
1,2-Dichloropropane	ug/L	ND	1.0	0.36	09/15/22 03:53	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.33	09/15/22 03:53	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.34	09/15/22 03:53	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	09/15/22 03:53	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	09/15/22 03:53	
2,2-Dichloropropane	ug/L	ND	1.0	0.39	09/15/22 03:53	
2-Butanone (MEK)	ug/L	ND	5.0	4.0	09/15/22 03:53	
2-Chlorotoluene	ug/L	ND	1.0	0.32	09/15/22 03:53	
2-Hexanone	ug/L	ND	5.0	0.48	09/15/22 03:53	
4-Chlorotoluene	ug/L	ND	1.0	0.32	09/15/22 03:53	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	2.7	09/15/22 03:53	
Acetone	ug/L	ND	25.0	5.1	09/15/22 03:53	
Benzene	ug/L	ND	1.0	0.34	09/15/22 03:53	
Bromobenzene	ug/L	ND	1.0	0.29	09/15/22 03:53	
Bromochloromethane	ug/L	ND	1.0	0.47	09/15/22 03:53	
Bromodichloromethane	ug/L	ND	1.0	0.31	09/15/22 03:53	
Bromoform	ug/L	ND	1.0	0.34	09/15/22 03:53	
Bromomethane	ug/L	ND	2.0	1.7	09/15/22 03:53	
Carbon tetrachloride	ug/L	ND	1.0	0.33	09/15/22 03:53	
Chlorobenzene	ug/L	ND	1.0	0.28	09/15/22 03:53	
Chloroethane	ug/L	ND	1.0	0.65	09/15/22 03:53	
Chloroform	ug/L	ND	1.0	0.43	09/15/22 03:53	
Chloromethane	ug/L	ND	1.0	0.54	09/15/22 03:53	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.38	09/15/22 03:53	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/15/22 03:53	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

METHOD BLANK: 3768366

Matrix: Water

Associated Lab Samples: 92624949006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/L	ND	1.0	0.36	09/15/22 03:53	
Dibromomethane	ug/L	ND	1.0	0.39	09/15/22 03:53	
Dichlorodifluoromethane	ug/L	ND	1.0	0.35	09/15/22 03:53	
Diisopropyl ether	ug/L	ND	1.0	0.31	09/15/22 03:53	
Ethylbenzene	ug/L	ND	1.0	0.30	09/15/22 03:53	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.5	09/15/22 03:53	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.33	09/15/22 03:53	
m&p-Xylene	ug/L	ND	2.0	0.71	09/15/22 03:53	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	09/15/22 03:53	
Methylene Chloride	ug/L	ND	5.0	2.0	09/15/22 03:53	
n-Butylbenzene	ug/L	ND	1.0	0.49	09/15/22 03:53	
n-Propylbenzene	ug/L	ND	1.0	0.34	09/15/22 03:53	
Naphthalene	ug/L	ND	1.0	0.64	09/15/22 03:53	
o-Xylene	ug/L	ND	1.0	0.34	09/15/22 03:53	
p-Isopropyltoluene	ug/L	ND	1.0	0.41	09/15/22 03:53	
sec-Butylbenzene	ug/L	ND	1.0	0.40	09/15/22 03:53	
Styrene	ug/L	ND	1.0	0.29	09/15/22 03:53	
tert-Butylbenzene	ug/L	ND	1.0	0.32	09/15/22 03:53	
Tetrachloroethene	ug/L	ND	1.0	0.29	09/15/22 03:53	
Toluene	ug/L	ND	1.0	0.48	09/15/22 03:53	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.40	09/15/22 03:53	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/15/22 03:53	
Trichloroethene	ug/L	ND	1.0	0.38	09/15/22 03:53	
Trichlorofluoromethane	ug/L	ND	1.0	0.30	09/15/22 03:53	
Vinyl acetate	ug/L	ND	2.0	1.3	09/15/22 03:53	
Vinyl chloride	ug/L	ND	1.0	0.39	09/15/22 03:53	
Xylene (Total)	ug/L	ND	1.0	0.34	09/15/22 03:53	
1,2-Dichloroethane-d4 (S)	%	97	70-130		09/15/22 03:53	
4-Bromofluorobenzene (S)	%	98	70-130		09/15/22 03:53	
Toluene-d8 (S)	%	102	70-130		09/15/22 03:53	

LABORATORY CONTROL SAMPLE: 3768367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.3	97	70-130	
1,1,1-Trichloroethane	ug/L	50	48.6	97	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	46.4	93	70-130	
1,1,2-Trichloroethane	ug/L	50	46.6	93	70-130	
1,1-Dichloroethane	ug/L	50	47.1	94	70-130	
1,1-Dichloroethene	ug/L	50	48.9	98	70-130	
1,1-Dichloropropene	ug/L	50	51.2	102	70-130	
1,2,3-Trichlorobenzene	ug/L	50	42.7	85	70-130	
1,2,3-Trichloropropane	ug/L	50	46.2	92	70-130	
1,2,4-Trichlorobenzene	ug/L	50	45.1	90	70-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

LABORATORY CONTROL SAMPLE: 3768367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	50	48.0	96	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.3	95	70-131	
1,2-Dibromoethane (EDB)	ug/L	50	48.0	96	70-130	
1,2-Dichlorobenzene	ug/L	50	46.4	93	70-130	
1,2-Dichloroethane	ug/L	50	47.0	94	70-130	
1,2-Dichloropropane	ug/L	50	48.0	96	70-130	
1,3,5-Trimethylbenzene	ug/L	50	49.1	98	70-130	
1,3-Dichlorobenzene	ug/L	50	47.7	95	70-130	
1,3-Dichloropropane	ug/L	50	46.6	93	70-130	
1,4-Dichlorobenzene	ug/L	50	46.7	93	70-130	
2,2-Dichloropropane	ug/L	50	43.6	87	68-135	
2-Butanone (MEK)	ug/L	100	90.8	91	70-134	
2-Chlorotoluene	ug/L	50	47.4	95	70-130	
2-Hexanone	ug/L	100	99.2	99	70-131	
4-Chlorotoluene	ug/L	50	47.8	96	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	92.5	93	70-130	
Acetone	ug/L	100	88.4	88	70-133	
Benzene	ug/L	50	44.8	90	70-130	
Bromobenzene	ug/L	50	46.6	93	70-130	
Bromochloromethane	ug/L	50	49.6	99	70-130	
Bromodichloromethane	ug/L	50	48.1	96	70-130	
Bromoform	ug/L	50	47.2	94	70-130	
Bromomethane	ug/L	50	47.5	95	45-151	
Carbon tetrachloride	ug/L	50	46.4	93	70-130	
Chlorobenzene	ug/L	50	47.5	95	70-130	
Chloroethane	ug/L	50	43.3	87	39-152	
Chloroform	ug/L	50	47.0	94	70-130	
Chloromethane	ug/L	50	55.6	111	58-130	
cis-1,2-Dichloroethene	ug/L	50	47.5	95	70-130	
cis-1,3-Dichloropropene	ug/L	50	48.2	96	70-130	
Dibromochloromethane	ug/L	50	47.7	95	70-130	
Dibromomethane	ug/L	50	46.9	94	70-130	
Dichlorodifluoromethane	ug/L	50	54.8	110	54-133	
Diisopropyl ether	ug/L	50	47.4	95	70-130	
Ethylbenzene	ug/L	50	46.9	94	70-130	
Hexachloro-1,3-butadiene	ug/L	50	44.6	89	70-135	
Isopropylbenzene (Cumene)	ug/L	50	46.6	93	70-130	
m&p-Xylene	ug/L	100	94.4	94	70-130	
Methyl-tert-butyl ether	ug/L	50	47.0	94	70-130	
Methylene Chloride	ug/L	50	44.3	89	66-130	
n-Butylbenzene	ug/L	50	48.1	96	70-130	
n-Propylbenzene	ug/L	50	47.6	95	70-130	
Naphthalene	ug/L	50	45.0	90	70-130	
o-Xylene	ug/L	50	47.7	95	70-130	
p-Isopropyltoluene	ug/L	50	49.4	99	70-130	
sec-Butylbenzene	ug/L	50	47.1	94	70-130	
Styrene	ug/L	50	49.0	98	70-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

LABORATORY CONTROL SAMPLE: 3768367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butylbenzene	ug/L	50	39.9	80	63-130	
Tetrachloroethene	ug/L	50	44.6	89	70-130	
Toluene	ug/L	50	45.5	91	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.6	97	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.1	94	70-130	
Trichloroethene	ug/L	50	49.2	98	70-130	
Trichlorofluoromethane	ug/L	50	47.3	95	62-130	
Vinyl acetate	ug/L	100	92.8	93	70-144	
Vinyl chloride	ug/L	50	53.4	107	62-130	
Xylene (Total)	ug/L	150	142	95	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768368 3768369

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92624945015 Result	Spike Conc.	Spike Conc.	Conc.								
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	20.6	21.2	103	106	70-141	3	30		
1,1,1-Trichloroethane	ug/L	ND	20	20	21.2	21.7	106	109	70-150	3	30		
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	20.2	20.4	101	102	69-142	1	30		
1,1,2-Trichloroethane	ug/L	ND	20	20	19.9	20.6	100	103	70-138	3	30		
1,1-Dichloroethane	ug/L	ND	20	20	20.3	20.7	102	103	70-150	2	30		
1,1-Dichloroethene	ug/L	ND	20	20	21.5	22.0	107	110	70-156	3	30		
1,1-Dichloropropene	ug/L	ND	20	20	22.0	22.5	110	113	70-150	2	30		
1,2,3-Trichlorobenzene	ug/L	ND	20	20	21.1	19.2	105	96	70-148	9	30		
1,2,3-Trichloropropane	ug/L	ND	20	20	20.1	20.1	101	100	70-140	0	30		
1,2,4-Trichlorobenzene	ug/L	ND	20	20	20.6	19.7	103	99	70-146	4	30		
1,2,4-Trimethylbenzene	ug/L	ND	20	20	20.9	20.7	104	103	70-149	1	30		
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	20.0	19.5	100	98	68-146	2	30		
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	20.7	21.1	103	106	70-138	2	30		
1,2-Dichlorobenzene	ug/L	ND	20	20	20.5	20.4	102	102	70-141	1	30		
1,2-Dichloroethane	ug/L	ND	20	20	20.2	20.6	101	103	69-143	2	30		
1,2-Dichloropropane	ug/L	ND	20	20	20.6	21.0	103	105	68-156	2	30		
1,3,5-Trimethylbenzene	ug/L	ND	20	20	21.3	21.1	107	105	70-153	1	30		
1,3-Dichlorobenzene	ug/L	ND	20	20	20.6	20.5	103	102	70-143	1	30		
1,3-Dichloropropane	ug/L	ND	20	20	20.0	20.6	100	103	70-138	3	30		
1,4-Dichlorobenzene	ug/L	ND	20	20	20.6	20.4	103	102	70-142	1	30		
2,2-Dichloropropane	ug/L	ND	20	20	18.7	19.2	93	96	52-170	3	30		
2-Butanone (MEK)	ug/L	ND	40	40	40.2	43.3	100	108	60-157	8	30		
2-Chlorotoluene	ug/L	ND	20	20	20.7	20.6	103	103	70-147	0	30		
2-Hexanone	ug/L	ND	40	40	40.4	41.7	101	104	68-146	3	30		
4-Chlorotoluene	ug/L	ND	20	20	20.6	20.7	103	104	70-142	0	30		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	37.7	39.0	94	97	70-141	3	30		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768368 3768369													
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92624945015 Result	Spike Conc.	Spike Conc.	MS Result								
Acetone	ug/L	ND	40	40	38.5	38.7	96	97	58-157	1	30		
Benzene	ug/L	ND	20	20	19.6	20.2	98	101	70-142	3	30		
Bromobenzene	ug/L	ND	20	20	20.7	20.6	103	103	70-143	1	30		
Bromochloromethane	ug/L	ND	20	20	21.4	21.6	107	108	70-146	1	30		
Bromodichloromethane	ug/L	ND	20	20	20.1	21.0	101	105	70-139	4	30		
Bromoform	ug/L	ND	20	20	19.1	19.8	96	99	64-140	4	30		
Bromomethane	ug/L	ND	20	20	23.3	22.7	117	114	28-192	3	30		
Carbon tetrachloride	ug/L	ND	20	20	21.4	21.3	107	107	70-148	1	30		
Chlorobenzene	ug/L	ND	20	20	20.9	21.5	105	108	70-141	3	30		
Chloroethane	ug/L	ND	20	20	23.1	23.2	116	116	58-191	1	30		
Chloroform	ug/L	ND	20	20	20.6	21.0	103	105	70-148	2	30		
Chloromethane	ug/L	ND	20	20	25.3	25.4	127	127	43-162	0	30		
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.5	20.7	103	104	68-151	1	30		
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.8	20.3	99	102	70-139	3	30		
Dibromochloromethane	ug/L	ND	20	20	20.0	20.5	100	102	70-144	2	30		
Dibromomethane	ug/L	ND	20	20	20.6	20.6	103	103	70-139	0	30		
Dichlorodifluoromethane	ug/L	ND	20	20	23.8	24.1	119	121	39-171	2	30		
Diisopropyl ether	ug/L	ND	20	20	19.7	20.2	98	101	67-142	2	30		
Ethylbenzene	ug/L	ND	20	20	20.7	21.4	103	107	70-143	4	30		
Hexachloro-1,3-butadiene	ug/L	ND	20	20	20.9	20.0	104	100	64-163	4	30		
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20.7	21.2	104	106	70-145	2	30		
m&p-Xylene	ug/L	ND	40	40	42.2	43.0	106	108	70-144	2	30		
Methyl-tert-butyl ether	ug/L	ND	20	20	18.8	19.4	94	97	65-143	3	30		
Methylene Chloride	ug/L	ND	20	20	19.3	19.5	97	98	62-149	1	30		
n-Butylbenzene	ug/L	ND	20	20	20.9	20.7	104	103	65-163	1	30		
n-Propylbenzene	ug/L	ND	20	20	20.8	20.8	104	104	70-152	0	30		
Naphthalene	ug/L	ND	20	20	22.1	20.1	110	101	67-147	9	30		
o-Xylene	ug/L	ND	20	20	20.9	21.3	105	106	70-145	2	30		
p-Isopropyltoluene	ug/L	ND	20	20	21.7	21.5	108	107	70-147	1	30		
sec-Butylbenzene	ug/L	ND	20	20	21.2	20.7	106	104	70-144	2	30		
Styrene	ug/L	ND	20	20	20.9	21.4	104	107	70-143	3	30		
tert-Butylbenzene	ug/L	ND	20	20	17.8	17.8	89	89	62-133	0	30		
Tetrachloroethene	ug/L	ND	20	20	19.9	20.5	100	103	70-145	3	30		
Toluene	ug/L	ND	20	20	20.1	20.4	100	102	70-142	2	30		
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.0	21.3	105	107	70-151	2	30		
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.8	20.1	99	101	70-139	2	30		
Trichloroethene	ug/L	ND	20	20	21.5	22.1	108	110	62-146	3	30		
Trichlorofluoromethane	ug/L	ND	20	20	21.8	22.7	109	113	63-153	4	30		
Vinyl acetate	ug/L	ND	40	40	33.5	34.5	84	86	61-162	3	30		
Vinyl chloride	ug/L	ND	20	20	23.7	23.8	118	119	61-163	1	30		
Xylene (Total)	ug/L	ND	60	60	63.1	64.3	105	107	70-143	2	30		
1,2-Dichloroethane-d4 (S)	%						98	98	70-130				
4-Bromofluorobenzene (S)	%						100	101	70-130				
Toluene-d8 (S)	%						98	98	70-130				

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

QC Batch: 723628 Analysis Method: EPA 8270E  
QC Batch Method: EPA 3546 Analysis Description: 8270E Solid MSSV Microwave  
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

METHOD BLANK: 3770436 Matrix: Solid  
Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	ND	0.32	0.13	09/16/22 12:15	
1,2-Dichlorobenzene	mg/kg	ND	0.32	0.12	09/16/22 12:15	
1,3-Dichlorobenzene	mg/kg	ND	0.32	0.12	09/16/22 12:15	
1,4-Dichlorobenzene	mg/kg	ND	0.32	0.12	09/16/22 12:15	
1-Methylnaphthalene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
2,2'-Oxybis(1-chloropropane)	mg/kg	ND	0.32	0.15	09/16/22 12:15	
2,4,5-Trichlorophenol	mg/kg	ND	0.32	0.15	09/16/22 12:15	
2,4,6-Trichlorophenol	mg/kg	ND	0.32	0.13	09/16/22 12:15	
2,4-Dichlorophenol	mg/kg	ND	0.32	0.13	09/16/22 12:15	
2,4-Dimethylphenol	mg/kg	ND	0.32	0.13	09/16/22 12:15	v1
2,4-Dinitrophenol	mg/kg	ND	1.6	1.0	09/16/22 12:15	
2,4-Dinitrotoluene	mg/kg	ND	0.32	0.12	09/16/22 12:15	
2,6-Dinitrotoluene	mg/kg	ND	0.32	0.12	09/16/22 12:15	
2-Chloronaphthalene	mg/kg	ND	0.32	0.13	09/16/22 12:15	
2-Chlorophenol	mg/kg	ND	0.32	0.12	09/16/22 12:15	
2-Methylnaphthalene	mg/kg	ND	0.32	0.13	09/16/22 12:15	
2-Methylphenol(o-Cresol)	mg/kg	ND	0.32	0.13	09/16/22 12:15	
2-Nitroaniline	mg/kg	ND	1.6	0.27	09/16/22 12:15	
2-Nitrophenol	mg/kg	ND	0.32	0.14	09/16/22 12:15	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	0.32	0.13	09/16/22 12:15	
3,3'-Dichlorobenzidine	mg/kg	ND	0.65	0.22	09/16/22 12:15	
3-Nitroaniline	mg/kg	ND	1.6	0.25	09/16/22 12:15	
4,6-Dinitro-2-methylphenol	mg/kg	ND	0.65	0.30	09/16/22 12:15	
4-Bromophenylphenyl ether	mg/kg	ND	0.32	0.12	09/16/22 12:15	
4-Chloro-3-methylphenol	mg/kg	ND	0.65	0.23	09/16/22 12:15	
4-Chloroaniline	mg/kg	ND	0.65	0.25	09/16/22 12:15	
4-Chlorophenylphenyl ether	mg/kg	ND	0.32	0.12	09/16/22 12:15	
4-Nitroaniline	mg/kg	ND	0.65	0.25	09/16/22 12:15	
4-Nitrophenol	mg/kg	ND	1.6	0.63	09/16/22 12:15	
Acenaphthene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Acenaphthylene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Aniline	mg/kg	ND	0.32	0.13	09/16/22 12:15	
Anthracene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Benzo(a)anthracene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Benzo(a)pyrene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Benzo(b)fluoranthene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Benzo(g,h,i)perylene	mg/kg	ND	0.32	0.13	09/16/22 12:15	
Benzo(k)fluoranthene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Benzoic Acid	mg/kg	ND	1.6	0.70	09/16/22 12:15	
Benzyl alcohol	mg/kg	ND	0.65	0.25	09/16/22 12:15	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

METHOD BLANK: 3770436

Matrix: Solid

Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	mg/kg	ND	0.32	0.13	09/16/22 12:15	
bis(2-Chloroethyl) ether	mg/kg	ND	0.32	0.12	09/16/22 12:15	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	0.32	0.13	09/16/22 12:15	
Butylbenzylphthalate	mg/kg	ND	0.32	0.14	09/16/22 12:15	
Chrysene	mg/kg	ND	0.32	0.12	09/16/22 12:15	
Di-n-butylphthalate	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Di-n-octylphthalate	mg/kg	ND	0.32	0.13	09/16/22 12:15	
Dibenz(a,h)anthracene	mg/kg	ND	0.32	0.12	09/16/22 12:15	
Dibenzofuran	mg/kg	ND	0.32	0.12	09/16/22 12:15	
Diethylphthalate	mg/kg	ND	0.32	0.12	09/16/22 12:15	
Dimethylphthalate	mg/kg	ND	0.32	0.12	09/16/22 12:15	
Fluoranthene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Fluorene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Hexachloro-1,3-butadiene	mg/kg	ND	0.32	0.14	09/16/22 12:15	v1
Hexachlorobenzene	mg/kg	ND	0.32	0.13	09/16/22 12:15	
Hexachlorocyclopentadiene	mg/kg	ND	0.32	0.19	09/16/22 12:15	
Hexachloroethane	mg/kg	ND	0.32	0.12	09/16/22 12:15	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.32	0.13	09/16/22 12:15	
Isophorone	mg/kg	ND	0.32	0.14	09/16/22 12:15	
N-Nitroso-di-n-propylamine	mg/kg	ND	0.32	0.12	09/16/22 12:15	
N-Nitrosodimethylamine	mg/kg	ND	0.32	0.11	09/16/22 12:15	
N-Nitrosodiphenylamine	mg/kg	ND	0.32	0.12	09/16/22 12:15	
Naphthalene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Nitrobenzene	mg/kg	ND	0.32	0.15	09/16/22 12:15	
Pentachlorophenol	mg/kg	ND	0.65	0.32	09/16/22 12:15	
Phenanthrene	mg/kg	ND	0.32	0.11	09/16/22 12:15	
Phenol	mg/kg	ND	0.32	0.14	09/16/22 12:15	
Pyrene	mg/kg	ND	0.32	0.13	09/16/22 12:15	
Pyridine	mg/kg	ND	0.32	0.10	09/16/22 12:15	
2,4,6-Tribromophenol (S)	%	74	10-131		09/16/22 12:15	
2-Fluorobiphenyl (S)	%	62	10-130		09/16/22 12:15	
2-Fluorophenol (S)	%	56	10-130		09/16/22 12:15	
Nitrobenzene-d5 (S)	%	64	10-130		09/16/22 12:15	
Phenol-d6 (S)	%	55	10-130		09/16/22 12:15	
Terphenyl-d14 (S)	%	78	10-130		09/16/22 12:15	

LABORATORY CONTROL SAMPLE: 3770437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	1.7	1.1	67	43-130	
1,2-Dichlorobenzene	mg/kg	1.7	0.82	49	43-130	
1,3-Dichlorobenzene	mg/kg	1.7	0.78	47	43-130	
1,4-Dichlorobenzene	mg/kg	1.7	0.78	46	44-130	
1-Methylnaphthalene	mg/kg	1.7	1.2	74	47-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

LABORATORY CONTROL SAMPLE: 3770437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2'-Oxybis(1-chloropropane)	mg/kg	1.7	0.82	49	29-130	
2,4,5-Trichlorophenol	mg/kg	1.7	1.6	94	47-130	
2,4,6-Trichlorophenol	mg/kg	1.7	1.6	98	47-130	
2,4-Dichlorophenol	mg/kg	1.7	1.2	72	45-130 v1	
2,4-Dimethylphenol	mg/kg	1.7	1.5	88	45-130	
2,4-Dinitrophenol	mg/kg	8.4	6.4	77	27-140	
2,4-Dinitrotoluene	mg/kg	1.7	1.6	96	46-130	
2,6-Dinitrotoluene	mg/kg	1.7	1.6	93	48-130	
2-Chloronaphthalene	mg/kg	1.7	1.3	79	46-130	
2-Chlorophenol	mg/kg	1.7	0.86	52	43-130	
2-Methylnaphthalene	mg/kg	1.7	1.2	72	47-130	
2-Methylphenol(o-Cresol)	mg/kg	1.7	0.99	59	42-130	
2-Nitroaniline	mg/kg	3.3	3.2	97	41-130	
2-Nitrophenol	mg/kg	1.7	1.1	65	48-130	
3&4-Methylphenol(m&p Cresol)	mg/kg	1.7	1.0	61	39-130	
3,3'-Dichlorobenzidine	mg/kg	3.3	3.2	97	41-130	
3-Nitroaniline	mg/kg	3.3	2.5	76	37-130	
4,6-Dinitro-2-methylphenol	mg/kg	3.3	2.9	87	38-141	
4-Bromophenylphenyl ether	mg/kg	1.7	1.7	103	47-130	
4-Chloro-3-methylphenol	mg/kg	3.3	3.1	91	44-130	
4-Chloroaniline	mg/kg	3.3	2.5	74	41-130	
4-Chlorophenylphenyl ether	mg/kg	1.7	1.7	101	45-130	
4-Nitroaniline	mg/kg	3.3	2.5	76	42-130	
4-Nitrophenol	mg/kg	8.4	8.9	107	39-131	
Acenaphthene	mg/kg	1.7	1.4	83	49-130	
Acenaphthylene	mg/kg	1.7	1.5	91	50-130	
Aniline	mg/kg	1.7	0.81	49	38-130	
Anthracene	mg/kg	1.7	1.4	81	49-130	
Benzo(a)anthracene	mg/kg	1.7	1.7	99	51-130	
Benzo(a)pyrene	mg/kg	1.7	2.0	117	51-130	
Benzo(b)fluoranthene	mg/kg	1.7	1.8	106	49-130	
Benzo(g,h,i)perylene	mg/kg	1.7	2.0	117	48-140	
Benzo(k)fluoranthene	mg/kg	1.7	1.7	102	51-130	
Benzoic Acid	mg/kg	8.4	5.0	60	22-130	
Benzyl alcohol	mg/kg	3.3	2.1	62	43-130	
bis(2-Chloroethoxy)methane	mg/kg	1.7	1.1	65	43-130	
bis(2-Chloroethyl) ether	mg/kg	1.7	0.79	47	42-130	
bis(2-Ethylhexyl)phthalate	mg/kg	1.7	1.6	93	43-130	
Butylbenzylphthalate	mg/kg	1.7	1.6	95	44-131	
Chrysene	mg/kg	1.7	1.6	95	51-130	
Di-n-butylphthalate	mg/kg	1.7	1.5	88	46-130	
Di-n-octylphthalate	mg/kg	1.7	1.6	94	45-130	
Dibenz(a,h)anthracene	mg/kg	1.7	1.9	116	48-130	
Dibenzofuran	mg/kg	1.7	1.5	90	10-130	
Diethylphthalate	mg/kg	1.7	1.5	92	48-130	
Dimethylphthalate	mg/kg	1.7	1.5	91	48-130	
Fluoranthene	mg/kg	1.7	1.6	93	48-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

LABORATORY CONTROL SAMPLE: 3770437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	mg/kg	1.7	1.6	96	48-130	
Hexachloro-1,3-butadiene	mg/kg	1.7	1.0	61	39-130 v1	
Hexachlorobenzene	mg/kg	1.7	1.6	98	47-130	
Hexachlorocyclopentadiene	mg/kg	1.7	0.84	50	17-130	
Hexachloroethane	mg/kg	1.7	0.81	48	40-130	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	2.0	118	50-130	
Isophorone	mg/kg	1.7	1.3	77	41-130	
N-Nitroso-di-n-propylamine	mg/kg	1.7	1.2	72	36-130	
N-Nitrosodimethylamine	mg/kg	1.7	0.81	49	34-130	
N-Nitrosodiphenylamine	mg/kg	1.7	1.5	89	48-130	
Naphthalene	mg/kg	1.7	1.0	62	46-130	
Nitrobenzene	mg/kg	1.7	1.1	67	39-130	
Pentachlorophenol	mg/kg	3.3	3.2	96	42-130	
Phenanthrene	mg/kg	1.7	1.5	89	50-130	
Phenol	mg/kg	1.7	0.91	55	42-130	
Pyrene	mg/kg	1.7	1.7	100	50-130	
Pyridine	mg/kg	1.7	0.61	37	26-130	
2,4,6-Tribromophenol (S)	%			102	10-131	
2-Fluorobiphenyl (S)	%			77	10-130	
2-Fluorophenol (S)	%			49	10-130	
Nitrobenzene-d5 (S)	%			64	10-130	
Phenol-d6 (S)	%			56	10-130	
Terphenyl-d14 (S)	%			95	10-130	

MATRIX SPIKE SAMPLE: 3770438

Parameter	Units	92624594001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	ND	2.3	1.8	77	16-130	
1,2-Dichlorobenzene	mg/kg	ND	2.3	1.3	59	19-130	
1,3-Dichlorobenzene	mg/kg	ND	2.3	1.3	59	19-130	
1,4-Dichlorobenzene	mg/kg	ND	2.3	1.3	58	20-130	
1-Methylnaphthalene	mg/kg	ND	2.3	1.7	75	19-130	
2,2'-Oxybis(1-chloropropane)	mg/kg	ND	2.3	1.3	59	10-130	
2,4,5-Trichlorophenol	mg/kg	ND	2.3	2.0	90	19-130	
2,4,6-Trichlorophenol	mg/kg	ND	2.3	2.2	95	18-130	
2,4-Dichlorophenol	mg/kg	ND	2.3	1.6	72	16-130 v1	
2,4-Dimethylphenol	mg/kg	ND	2.3	1.9	85	10-130	
2,4-Dinitrophenol	mg/kg	ND	11.4	8.2	72	10-143	
2,4-Dinitrotoluene	mg/kg	ND	2.3	2.2	97	19-130	
2,6-Dinitrotoluene	mg/kg	ND	2.3	2.1	91	22-130	
2-Chloronaphthalene	mg/kg	ND	2.3	1.8	77	18-130	
2-Chlorophenol	mg/kg	ND	2.3	1.4	62	20-130	
2-Methylnaphthalene	mg/kg	ND	2.3	1.7	73	18-130	
2-Methylphenol(o-Cresol)	mg/kg	ND	2.3	1.4	62	13-130	
2-Nitroaniline	mg/kg	ND	4.5	4.3	95	18-130	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

MATRIX SPIKE SAMPLE: 3770438		92624594001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
2-Nitrophenol	mg/kg	ND	2.3	1.6	70	19-130	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	2.3	1.4	62	13-130	
3,3'-Dichlorobenzidine	mg/kg	ND	4.5	4.0	89	10-130	
3-Nitroaniline	mg/kg	ND	4.5	3.6	79	22-130	
4,6-Dinitro-2-methylphenol	mg/kg	ND	4.5	3.7	82	10-144	
4-Bromophenylphenyl ether	mg/kg	ND	2.3	2.1	95	18-130	
4-Chloro-3-methylphenol	mg/kg	ND	4.5	3.9	87	16-130	
4-Chloroaniline	mg/kg	ND	4.5	3.2	71	17-130	
4-Chlorophenylphenyl ether	mg/kg	ND	2.3	2.2	96	17-130	
4-Nitroaniline	mg/kg	ND	4.5	3.5	77	21-130	
4-Nitrophenol	mg/kg	ND	11.4	12.2	107	13-131	
Acenaphthene	mg/kg	ND	2.3	1.8	81	20-130	
Acenaphthylene	mg/kg	ND	2.3	2.0	88	21-130	
Aniline	mg/kg	ND	2.3	0.90	40	10-130	
Anthracene	mg/kg	ND	2.3	1.8	77	19-130	
Benzo(a)anthracene	mg/kg	ND	2.3	2.1	92	17-130	
Benzo(a)pyrene	mg/kg	ND	2.3	2.6	112	14-130	
Benzo(b)fluoranthene	mg/kg	ND	2.3	2.3	100	11-134	
Benzo(g,h,i)perylene	mg/kg	ND	2.3	2.5	109	12-130	
Benzo(k)fluoranthene	mg/kg	ND	2.3	2.2	95	15-130	
Benzoic Acid	mg/kg	ND	11.4	1.8J	16	10-130	
Benzyl alcohol	mg/kg	ND	4.5	2.9	63	20-130	
bis(2-Chloroethoxy)methane	mg/kg	ND	2.3	1.5	66	16-130	
bis(2-Chloroethyl) ether	mg/kg	ND	2.3	1.3	58	18-130	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	2.3	1.9	84	11-130	
Butylbenzylphthalate	mg/kg	ND	2.3	2.0	86	10-130	
Chrysene	mg/kg	ND	2.3	2.0	89	17-130	
Di-n-butylphthalate	mg/kg	ND	2.3	1.8	81	16-130	
Di-n-octylphthalate	mg/kg	ND	2.3	2.0	86	16-130	
Dibenz(a,h)anthracene	mg/kg	ND	2.3	2.5	108	13-130	
Dibenzofuran	mg/kg	ND	2.3	2.0	88	19-130	
Diethylphthalate	mg/kg	ND	2.3	2.1	91	22-130	
Dimethylphthalate	mg/kg	ND	2.3	2.0	90	23-130	
Fluoranthene	mg/kg	ND	2.3	2.1	90	14-130	
Fluorene	mg/kg	ND	2.3	2.1	93	19-130	
Hexachloro-1,3-butadiene	mg/kg	ND	2.3	1.6	71	12-130 v1	
Hexachlorobenzene	mg/kg	ND	2.3	2.1	92	17-130	
Hexachlorocyclopentadiene	mg/kg	ND	2.3	1.1	49	10-130	
Hexachloroethane	mg/kg	ND	2.3	1.4	60	14-130	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	2.3	2.5	110	13-130	
Isophorone	mg/kg	ND	2.3	1.7	75	17-130	
N-Nitroso-di-n-propylamine	mg/kg	ND	2.3	1.6	72	10-130	
N-Nitrosodimethylamine	mg/kg	ND	2.3	1.3	56	16-130	
N-Nitrosodiphenylamine	mg/kg	ND	2.3	1.9	86	19-130	
Naphthalene	mg/kg	ND	2.3	1.6	69	18-130	
Nitrobenzene	mg/kg	ND	2.3	1.7	75	15-130	
Pentachlorophenol	mg/kg	ND	4.5	4.0	89	10-130	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

MATRIX SPIKE SAMPLE: 3770438		92624594001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Phenanthrene	mg/kg	ND	2.3	2.0	86	17-130	
Phenol	mg/kg	ND	2.3	1.4	60	15-130	
Pyrene	mg/kg	ND	2.3	2.1	94	31-130	
Pyridine	mg/kg	ND	2.3	0.24J	11	10-130	
2,4,6-Tribromophenol (S)	%				97	10-131	
2-Fluorobiphenyl (S)	%				75	10-130	
2-Fluorophenol (S)	%				58	10-130	
Nitrobenzene-d5 (S)	%				71	10-130	
Phenol-d6 (S)	%				60	10-130	
Terphenyl-d14 (S)	%				86	10-130	

SAMPLE DUPLICATE: 3770439

Parameter	Units	92624594002	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
1,2,4-Trichlorobenzene	mg/kg	ND	ND		30	
1,2-Dichlorobenzene	mg/kg	ND	ND		30	
1,3-Dichlorobenzene	mg/kg	ND	ND		30	
1,4-Dichlorobenzene	mg/kg	ND	ND		30	
1-Methylnaphthalene	mg/kg	ND	ND		30	
2,2'-Oxybis(1-chloropropane)	mg/kg	ND	ND		30	
2,4,5-Trichlorophenol	mg/kg	ND	ND		30	
2,4,6-Trichlorophenol	mg/kg	ND	ND		30	
2,4-Dichlorophenol	mg/kg	ND	ND		30 v1	
2,4-Dimethylphenol	mg/kg	ND	ND		30	
2,4-Dinitrophenol	mg/kg	ND	ND		30	
2,4-Dinitrotoluene	mg/kg	ND	ND		30	
2,6-Dinitrotoluene	mg/kg	ND	ND		30	
2-Chloronaphthalene	mg/kg	ND	ND		30	
2-Chlorophenol	mg/kg	ND	ND		30	
2-Methylnaphthalene	mg/kg	ND	ND		30	
2-Methylphenol(o-Cresol)	mg/kg	ND	ND		30	
2-Nitroaniline	mg/kg	ND	ND		30	
2-Nitrophenol	mg/kg	ND	ND		30	
3&4-Methylphenol(m&p Cresol)	mg/kg	ND	ND		30	
3,3'-Dichlorobenzidine	mg/kg	ND	ND		30	
3-Nitroaniline	mg/kg	ND	ND		30	
4,6-Dinitro-2-methylphenol	mg/kg	ND	ND		30	
4-Bromophenylphenyl ether	mg/kg	ND	ND		30	
4-Chloro-3-methylphenol	mg/kg	ND	ND		30	
4-Chloroaniline	mg/kg	ND	ND		30	
4-Chlorophenylphenyl ether	mg/kg	ND	ND		30	
4-Nitroaniline	mg/kg	ND	ND		30	
4-Nitrophenol	mg/kg	ND	ND		30	
Acenaphthene	mg/kg	ND	ND		30	
Acenaphthylene	mg/kg	ND	ND		30	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

SAMPLE DUPLICATE: 3770439

Parameter	Units	92624594002 Result	Dup Result	RPD	Max RPD	Qualifiers
Aniline	mg/kg	ND	ND		30	
Anthracene	mg/kg	ND	ND		30	
Benzo(a)anthracene	mg/kg	ND	ND		30	
Benzo(a)pyrene	mg/kg	ND	ND		30	
Benzo(b)fluoranthene	mg/kg	ND	ND		30	
Benzo(g,h,i)perylene	mg/kg	ND	ND		30	
Benzo(k)fluoranthene	mg/kg	ND	ND		30	
Benzoic Acid	mg/kg	ND	ND		30	
Benzyl alcohol	mg/kg	ND	ND		30	
bis(2-Chloroethoxy)methane	mg/kg	ND	ND		30	
bis(2-Chloroethyl) ether	mg/kg	ND	ND		30	
bis(2-Ethylhexyl)phthalate	mg/kg	ND	ND		30	
Butylbenzylphthalate	mg/kg	ND	ND		30	
Chrysene	mg/kg	ND	ND		30	
Di-n-butylphthalate	mg/kg	ND	ND		30	
Di-n-octylphthalate	mg/kg	ND	ND		30	
Dibenz(a,h)anthracene	mg/kg	ND	ND		30	
Dibenzofuran	mg/kg	ND	ND		30	
Diethylphthalate	mg/kg	ND	ND		30	
Dimethylphthalate	mg/kg	ND	ND		30	
Fluoranthene	mg/kg	ND	ND		30	
Fluorene	mg/kg	ND	ND		30	
Hexachloro-1,3-butadiene	mg/kg	ND	ND		30 v1	
Hexachlorobenzene	mg/kg	ND	ND		30	
Hexachlorocyclopentadiene	mg/kg	ND	ND		30	
Hexachloroethane	mg/kg	ND	ND		30	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	ND		30	
Isophorone	mg/kg	ND	ND		30	
N-Nitroso-di-n-propylamine	mg/kg	ND	ND		30	
N-Nitrosodimethylamine	mg/kg	ND	ND		30	
N-Nitrosodiphenylamine	mg/kg	ND	ND		30	
Naphthalene	mg/kg	ND	ND		30	
Nitrobenzene	mg/kg	ND	ND		30	
Pentachlorophenol	mg/kg	ND	ND		30	
Phenanthrene	mg/kg	ND	ND		30	
Phenol	mg/kg	ND	ND		30	
Pyrene	mg/kg	ND	ND		30	
Pyridine	mg/kg	ND	ND		30	
2,4,6-Tribromophenol (S)	%	80	91			
2-Fluorobiphenyl (S)	%	45	64			
2-Fluorophenol (S)	%	42	56			
Nitrobenzene-d5 (S)	%	48	67			
Phenol-d6 (S)	%	40	54			
Terphenyl-d14 (S)	%	74	83			

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

QC Batch: 722775

Analysis Method: SW-846

QC Batch Method: SW-846

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

SAMPLE DUPLICATE: 3766113

Parameter	Units	92624871001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	9.3	8.3	12	25	N2

SAMPLE DUPLICATE: 3766114

Parameter	Units	92624831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.3	15.5	1	25	N2

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL

Pace Project No.: 92624949

QC Batch: 1927631

Analysis Method: SM 2540G

QC Batch Method: SM 2540 G

Analysis Description: Total Solids 2540 G-2011

Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

METHOD BLANK: R3838575-1

Matrix: Solid

Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00200			09/17/22 15:01	

LABORATORY CONTROL SAMPLE: R3838575-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3838575-3

Parameter	Units	L1536079-02 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	78.7	78.6	0.139	10	

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### QUALITY CONTROL DATA

Project: TCH-009 SOIL  
Pace Project No.: 92624949

QC Batch: 1929479 Analysis Method: EPA 7199  
QC Batch Method: 3060A Analysis Description: Wet Chemistry 7199  
Laboratory: Pace National - Mt. Juliet  
Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

METHOD BLANK: R3841276-1 Matrix: Solid  
Associated Lab Samples: 92624949001, 92624949002, 92624949003, 92624949004, 92624949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	mg/kg	ND	1.00	0.255	09/23/22 12:40	

LABORATORY CONTROL SAMPLE: R3841276-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	10.0	10.3	103	80.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3841276-7 R3841276-8

Parameter	Units	92624949003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/kg	0.356	22.8	22.8	18.3	16.2	78.8	69.4	75.0-125	12.5	20	ML

MATRIX SPIKE SAMPLE: R3841276-10

Parameter	Units	92624949003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	0.356	737	609	82.6	75.0-125	

SAMPLE DUPLICATE: R3841276-3

Parameter	Units	L1534450-03 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	0.530	0.473J	11.2	20	J

SAMPLE DUPLICATE: R3841276-4

Parameter	Units	92624949002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	ND	ND	0.00	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: TCH-009 SOIL  
Pace Project No.: 92624949

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

C0	Result confirmed by second analysis.
J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TCH-009 SOIL  
Pace Project No.: 92624949

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92624949001	HH-12 (4-5)	EPA 3050B	723149	EPA 6010D	723215
92624949002	HH-13 (0-2)	EPA 3050B	723149	EPA 6010D	723215
92624949003	HH-14 (0-2)	EPA 3050B	726356	EPA 6010D	726413
92624949004	HH-15 (0-2)	EPA 3050B	723149	EPA 6010D	723215
92624949005	HH-DUP	EPA 3050B	723149	EPA 6010D	723215
92624949001	HH-12 (4-5)	EPA 3050B	842051	EPA 6020B	842832
92624949002	HH-13 (0-2)	EPA 3050B	842051	EPA 6020B	842832
92624949003	HH-14 (0-2)	EPA 3050B	842051	EPA 6020B	842832
92624949004	HH-15 (0-2)	EPA 3050B	842051	EPA 6020B	842832
92624949005	HH-DUP	EPA 3050B	842051	EPA 6020B	842832
92624949001	HH-12 (4-5)	EPA 7471B	723847	EPA 7471B	724123
92624949002	HH-13 (0-2)	EPA 7471B	723847	EPA 7471B	724123
92624949003	HH-14 (0-2)	EPA 7471B	726077	EPA 7471B	726476
92624949004	HH-15 (0-2)	EPA 7471B	723847	EPA 7471B	724123
92624949005	HH-DUP	EPA 7471B	723847	EPA 7471B	724123
92624949001	HH-12 (4-5)	EPA 3546	723628	EPA 8270E	723791
92624949002	HH-13 (0-2)	EPA 3546	723628	EPA 8270E	723791
92624949003	HH-14 (0-2)	EPA 3546	723628	EPA 8270E	723791
92624949004	HH-15 (0-2)	EPA 3546	723628	EPA 8270E	723791
92624949005	HH-DUP	EPA 3546	723628	EPA 8270E	723791
92624949001	HH-12 (4-5)	EPA 5035A/5030B	722800	EPA 8260D	722884
92624949002	HH-13 (0-2)	EPA 5035A/5030B	722800	EPA 8260D	722884
92624949003	HH-14 (0-2)	EPA 5035A/5030B	722800	EPA 8260D	722884
92624949004	HH-15 (0-2)	EPA 5035A/5030B	722800	EPA 8260D	722884
92624949005	HH-DUP	EPA 5035A/5030B	722800	EPA 8260D	722884
92624949006	TRIP BLANK	EPA 8260D	723258		
92624949001	HH-12 (4-5)	SW-846	722775		
92624949002	HH-13 (0-2)	SW-846	722775		
92624949003	HH-14 (0-2)	SW-846	722775		
92624949004	HH-15 (0-2)	SW-846	722775		
92624949005	HH-DUP	SW-846	722775		
92624949001	HH-12 (4-5)	SM 2540 G	1927631	SM 2540G	1927631
92624949002	HH-13 (0-2)	SM 2540 G	1927631	SM 2540G	1927631
92624949003	HH-14 (0-2)	SM 2540 G	1927631	SM 2540G	1927631
92624949004	HH-15 (0-2)	SM 2540 G	1927631	SM 2540G	1927631
92624949005	HH-DUP	SM 2540 G	1927631	SM 2540G	1927631
92624949001	HH-12 (4-5)	3060A	1929479	EPA 7199	1929479
92624949002	HH-13 (0-2)	3060A	1929479	EPA 7199	1929479
92624949003	HH-14 (0-2)	3060A	1929479	EPA 7199	1929479
92624949004	HH-15 (0-2)	3060A	1929479	EPA 7199	1929479
92624949005	HH-DUP	3060A	1929479	EPA 7199	1929479

### REPORT OF LABORATORY ANALYSIS

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Effective Date: 05/12/202205/12/2022

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name: Hart P Hickman

Project #: **WO#: 92624949**



Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other: \_\_\_\_\_

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A

Thermometer:

IR Gun ID: 927004 Type of Ice:  Wet  Blue  None

Cooler Temp: 1.4 Correction Factor: 0 Add/Subtract (°C)

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.4

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  Yes  No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>SL</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10.
Trip Blank Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers: \_\_\_\_\_

CLIENT NOTIFICATION/RESOLUTION

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCURF Review: \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager SRF Review: \_\_\_\_\_ Date: \_\_\_\_\_



Effective Date: 05/12/202205/12/2022

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

\*\*Bottom half of box is to list number of bottles

\*\*\*Check all unpreserved Nitrates for chlorine

Project

WO#: 92624949

PM: KRG

Due Date: 09/19/22

CLIENT: 92-Hart\_Ral

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1	/	/	/	/	/	/	/	/	4	/	/	/	/	/	/	/	/	/	/	/	3	/	/	/	/	/	/
2	/	/	/	/	/	/	/	/	4	/	/	/	/	/	/	/	/	/	/	/	3	/	/	/	/	/	/
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9	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
10	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
11	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
12	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>.

**CHAIN-OF-CUSTODY / Analytical Request Document**

**Section A**

**Required Client Information:**  
 Company: Hart & Hickman Raleigh  
 Address: 3821 Sunset Ridge Rd  
 Suite 301, Raleigh, NC 27607  
 Email: jwilke@hartickman.com  
 Phone: NONE  
 Requested Due Date: \_\_\_\_\_

**Required Project Information:**  
 Report To: Jared Wilke  
 Copy To: \_\_\_\_\_  
 Purchase Order #: \_\_\_\_\_  
 Project Name: TCH-009 soil  
 Project #: \_\_\_\_\_

**Invoice Information:**  
 Attention: \_\_\_\_\_  
 Company Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Pace Quote: \_\_\_\_\_  
 Pace Project Manager: kevin.godwin@pacelabs.com  
 Pace Profile #: 15457-6

**Regulatory Agency**  
 State / Location: NC

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (A-Z, 0-9 / . - ) Sample IDs must be unique	MATRIX Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Other Tissue	CODE DM/ WWT WW/ P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS Unpreserved	Preservatives						Analyses Test	Y/N	Residual Chlorine (Y/N)	
						START DATE TIME	END DATE TIME			H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol				Other
1	HH-12 (4-5)			SLG	9/12	11:15	11:25	75											001
2	HH-13 (0-2)							71											002
3	HH-14 (0-2)							71											003
4	HH-15 (0-2)							71											004
5	HH-DWP							71											005
6	Top Blank							2											006
7																			
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>[Signature]</i>	9/12/22	1:30	<i>[Signature]</i>	9/19/22	10:57	g g g
	<i>[Signature]</i>	9/16/22	11:22	<i>[Signature]</i>	9/22/22	11:50	g g g

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: Sean Hogan  
 SIGNATURE of SAMPLER: *[Signature]*  
 DATE Signed: 9/16/22

TEMP in C  
 Received on Ice (Y/N)  
 Custody Sealed Cooler (Y/N)  
 Samples Intact (Y/N)

September 23, 2022

Jared Wilke  
Hart & Hickman  
3921 Sunset Ridge Rd  
Suite 301  
Raleigh, NC 27607

RE: Project: TCH-009  
Pace Project No.: 92623225

Dear Jared Wilke:

Enclosed are the analytical results for sample(s) received by the laboratory on August 31, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Godwin  
kevin.godwin@pacelabs.com  
1(704)875-9092  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: TCH-009  
Pace Project No.: 92623225

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### Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122  
Alabama Certification #: 40660  
Alaska Certification #: 17-026  
Arizona Certification #: AZ0612  
Arkansas Certification #: 88-0469  
California Certification #: 2932  
Canada Certification #: 1461.01  
Colorado Certification #: TN00003  
Connecticut Certification #: PH-0197  
DOD Certification #: #1461.01  
EPA# TN00003  
Florida Certification #: E87487  
Georgia DW Certification #: 923  
Georgia Certification: NELAP  
Idaho Certification #: TN00003  
Illinois Certification #: 200008  
Indiana Certification #: C-TN-01  
Iowa Certification #: 364  
Kansas Certification #: E-10277  
Kentucky UST Certification #: 16  
Kentucky Certification #: 90010  
Louisiana Certification #: AI30792  
Louisiana DW Certification #: LA180010  
Maine Certification #: TN0002  
Maryland Certification #: 324  
Massachusetts Certification #: M-TN003  
Michigan Certification #: 9958  
Minnesota Certification #: 047-999-395  
Mississippi Certification #: TN00003  
Missouri Certification #: 340  
Montana Certification #: CERT0086  
Nebraska Certification #: NE-OS-15-05

Nevada Certification #: TN-03-2002-34  
New Hampshire Certification #: 2975  
New Jersey Certification #: TN002  
New Mexico DW Certification  
New York Certification #: 11742  
North Carolina Aquatic Toxicity Certification #: 41  
North Carolina Drinking Water Certification #: 21704  
North Carolina Environmental Certificate #: 375  
North Dakota Certification #: R-140  
Ohio VAP Certification #: CL0069  
Oklahoma Certification #: 9915  
Oregon Certification #: TN200002  
Pennsylvania Certification #: 68-02979  
Rhode Island Certification #: LAO00356  
South Carolina Certification #: 84004  
South Dakota Certification  
Tennessee DW/Chem/Micro Certification #: 2006  
Texas Mold Certification #: LAB0152  
Texas Certification #: T 104704245-17-14  
USDA Soil Permit #: P330-15-00234  
Utah Certification #: TN00003  
Virginia Certification #: VT2006  
Vermont Dept. of Health: ID# VT-2006  
Virginia Certification #: 460132  
Washington Certification #: C847  
West Virginia Certification #: 233  
Wisconsin Certification #: 998093910  
Wyoming UST Certification #: via A2LA 2926.01  
A2LA-ISO 17025 Certification #: 1461.01  
A2LA-ISO 17025 Certification #: 1461.02  
AIHA-LAP/LLC EMLAP Certification #: 100789

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### Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006  
9800 Kincey Ave. Ste 100, Huntersville, NC 28078  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12  
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001  
South Carolina Drinking Water Cert. #: 99006003  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Louisiana DoH Drinking Water #: LA029  
Virginia/VELAP Certification #: 460221

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### Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
North Carolina Drinking Water Certification #: 37712  
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: TCH-009

Pace Project No.: 92623225

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92623225001	MW-3A	Water	08/30/22 16:15	08/31/22 13:45
92623225002	MW-4A	Water	08/31/22 09:50	08/31/22 13:45
92623225003	MW-5	Water	08/30/22 13:25	08/31/22 13:45
92623225004	MW-6	Water	08/30/22 15:10	08/31/22 13:45
92623225005	MW-9	Water	08/31/22 11:10	08/31/22 13:45
92623225006	MW-11D	Water	08/31/22 12:00	08/31/22 13:45
92623225007	Trip Blank-1	Water	08/30/22 00:00	08/31/22 13:45

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: TCH-009  
Pace Project No.: 92623225

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92623225001	MW-3A	EPA 6010D	DEC	5	PASI-A
		EPA 6020B	DBB1	13	PASI-A
		EPA 7470A	NMP	1	PASI-A
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
		EPA 7199	ARD	1	PAN
		SM 2540C-2015	JMH1	1	PASI-A
		EPA 9056A	JCM	4	PASI-A
92623225002	MW-4A	EPA 6010D	DEC	5	PASI-A
		EPA 6020B	DBB1	13	PASI-A
		EPA 7470A	NMP	1	PASI-A
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
		EPA 7199	ARD	1	PAN
		SM 2540C-2015	JMH1	1	PASI-A
		EPA 9056A	JCM	4	PASI-A
92623225003	MW-5	EPA 6010D	DEC	5	PASI-A
		EPA 6020B	DBB1	13	PASI-A
		EPA 7470A	NMP	1	PASI-A
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
		EPA 7199	ARD	1	PAN
		SM 2540C-2015	JMH1	1	PASI-A
		EPA 9056A	JCM	4	PASI-A
92623225004	MW-6	EPA 6010D	DEC	5	PASI-A
		EPA 6020B	DBB1	13	PASI-A
		EPA 7470A	NMP	1	PASI-A
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
		EPA 7199	ARD	1	PAN
		SM 2540C-2015	JMH1	1	PASI-A
		EPA 9056A	JCM	4	PASI-A
92623225005	MW-9	EPA 6010D	DEC	5	PASI-A

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### SAMPLE ANALYTE COUNT

Project: TCH-009  
Pace Project No.: 92623225

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92623225006	MW-11D	EPA 6020B	DBB1	13	PASI-A
		EPA 7470A	NMP	1	PASI-A
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
		EPA 7199	ARD	1	PAN
		SM 2540C-2015	JMH1	1	PASI-A
		EPA 9056A	JCM	4	PASI-A
		EPA 6010D	DEC	5	PASI-A
		EPA 6020B	DBB1	13	PASI-A
		EPA 7470A	NMP	1	PASI-A
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
		EPA 7199	ARD	1	PAN
SM 2540C-2015	JMH1	1	PASI-A		
92623225007	Trip Blank-1	EPA 9056A	JCM	4	PASI-A
		EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C

PAN = Pace National - Mt. Juliet  
PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-3A**      **Lab ID: 92623225001**      Collected: 08/30/22 16:15      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Barium	67.5	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 21:44	7440-39-3	
Boron	625	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 21:44	7440-42-8	
Manganese	664	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 21:44	7439-96-5	
Strontium	2530	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 21:44	7440-24-6	
Zinc	ND	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 21:44	7440-66-6	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Antimony	ND	ug/L	1.0	0.20	1	09/02/22 13:10	09/06/22 23:22	7440-36-0	
Arsenic	0.38J	ug/L	1.0	0.087	1	09/02/22 13:10	09/06/22 23:22	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/02/22 13:10	09/06/22 23:22	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/02/22 13:10	09/06/22 23:22	7440-43-9	
Chromium	ND	ug/L	1.0	0.50	1	09/02/22 13:10	09/06/22 23:22	7440-47-3	
Cobalt	0.38J	ug/L	1.0	0.050	1	09/02/22 13:10	09/06/22 23:22	7440-48-4	
Copper	ND	ug/L	2.0	1.1	1	09/02/22 13:10	09/06/22 23:22	7440-50-8	
Lithium	20.3	ug/L	2.5	0.50	1	09/02/22 13:10	09/06/22 23:22	7439-93-2	
Molybdenum	0.83J	ug/L	1.0	0.13	1	09/02/22 13:10	09/06/22 23:22	7439-98-7	
Nickel	0.77J	ug/L	1.0	0.42	1	09/02/22 13:10	09/06/22 23:22	7440-02-0	
Selenium	7.0	ug/L	2.0	0.072	1	09/02/22 13:10	09/06/22 23:22	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/02/22 13:10	09/06/22 23:22	7440-28-0	
Vanadium	2.5	ug/L	1.0	0.25	1	09/02/22 13:10	09/06/22 23:22	7440-62-2	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A									
Pace Analytical Services - Asheville									
Mercury	ND	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:16	7439-97-6	
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	9.1	1.8	1	09/06/22 12:00	09/06/22 22:33	83-32-9	
Acenaphthylene	ND	ug/L	9.1	1.8	1	09/06/22 12:00	09/06/22 22:33	208-96-8	
Aniline	ND	ug/L	9.1	1.5	1	09/06/22 12:00	09/06/22 22:33	62-53-3	
Anthracene	ND	ug/L	9.1	2.1	1	09/06/22 12:00	09/06/22 22:33	120-12-7	
Benzo(a)anthracene	ND	ug/L	9.1	2.4	1	09/06/22 12:00	09/06/22 22:33	56-55-3	
Benzo(a)pyrene	ND	ug/L	9.1	2.5	1	09/06/22 12:00	09/06/22 22:33	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	9.1	2.4	1	09/06/22 12:00	09/06/22 22:33	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	9.1	2.6	1	09/06/22 12:00	09/06/22 22:33	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	9.1	2.5	1	09/06/22 12:00	09/06/22 22:33	207-08-9	
Benzoic Acid	ND	ug/L	45.5	20.0	1	09/06/22 12:00	09/06/22 22:33	65-85-0	
Benzyl alcohol	ND	ug/L	18.2	2.6	1	09/06/22 12:00	09/06/22 22:33	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	9.1	1.6	1	09/06/22 12:00	09/06/22 22:33	101-55-3	
Butylbenzylphthalate	ND	ug/L	9.1	2.9	1	09/06/22 12:00	09/06/22 22:33	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	9.1	3.0	1	09/06/22 12:00	09/06/22 22:33	59-50-7	
4-Chloroaniline	ND	ug/L	18.2	3.3	1	09/06/22 12:00	09/06/22 22:33	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	9.1	1.7	1	09/06/22 12:00	09/06/22 22:33	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	9.1	1.7	1	09/06/22 12:00	09/06/22 22:33	111-44-4	

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-3A**      **Lab ID: 92623225001**      Collected: 08/30/22 16:15      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b> Analytical Method: EPA 8270E      Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
2-Chloronaphthalene	ND	ug/L	9.1	1.6	1	09/06/22 12:00	09/06/22 22:33	91-58-7	
2-Chlorophenol	ND	ug/L	9.1	1.1	1	09/06/22 12:00	09/06/22 22:33	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	9.1	1.8	1	09/06/22 12:00	09/06/22 22:33	7005-72-3	
Chrysene	ND	ug/L	9.1	2.5	1	09/06/22 12:00	09/06/22 22:33	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	9.1	2.7	1	09/06/22 12:00	09/06/22 22:33	53-70-3	
Dibenzofuran	ND	ug/L	9.1	1.9	1	09/06/22 12:00	09/06/22 22:33	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	9.1	1.6	1	09/06/22 12:00	09/06/22 22:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	9.1	1.5	1	09/06/22 12:00	09/06/22 22:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	9.1	1.5	1	09/06/22 12:00	09/06/22 22:33	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	18.2	7.4	1	09/06/22 12:00	09/06/22 22:33	91-94-1	
2,4-Dichlorophenol	ND	ug/L	9.1	1.3	1	09/06/22 12:00	09/06/22 22:33	120-83-2	
Diethylphthalate	ND	ug/L	9.1	1.9	1	09/06/22 12:00	09/06/22 22:33	84-66-2	
2,4-Dimethylphenol	ND	ug/L	9.1	1.5	1	09/06/22 12:00	09/06/22 22:33	105-67-9	
Dimethylphthalate	ND	ug/L	9.1	1.9	1	09/06/22 12:00	09/06/22 22:33	131-11-3	
Di-n-butylphthalate	ND	ug/L	9.1	2.0	1	09/06/22 12:00	09/06/22 22:33	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	18.2	7.1	1	09/06/22 12:00	09/06/22 22:33	534-52-1	
2,4-Dinitrophenol	ND	ug/L	45.5	23.6	1	09/06/22 12:00	09/06/22 22:33	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	9.1	1.5	1	09/06/22 12:00	09/06/22 22:33	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	9.1	1.6	1	09/06/22 12:00	09/06/22 22:33	606-20-2	
Di-n-octylphthalate	ND	ug/L	9.1	3.6	1	09/06/22 12:00	09/06/22 22:33	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	5.5	3.4	1	09/06/22 12:00	09/06/22 22:33	117-81-7	
Fluoranthene	ND	ug/L	9.1	2.0	1	09/06/22 12:00	09/06/22 22:33	206-44-0	
Fluorene	ND	ug/L	9.1	1.9	1	09/06/22 12:00	09/06/22 22:33	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	9.1	1.6	1	09/06/22 12:00	09/06/22 22:33	87-68-3	
Hexachlorobenzene	ND	ug/L	9.1	2.0	1	09/06/22 12:00	09/06/22 22:33	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	9.1	1.4	1	09/06/22 12:00	09/06/22 22:33	77-47-4	
Hexachloroethane	ND	ug/L	9.1	1.3	1	09/06/22 12:00	09/06/22 22:33	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	9.1	2.6	1	09/06/22 12:00	09/06/22 22:33	193-39-5	
Isophorone	ND	ug/L	9.1	1.5	1	09/06/22 12:00	09/06/22 22:33	78-59-1	
1-Methylnaphthalene	ND	ug/L	9.1	1.8	1	09/06/22 12:00	09/06/22 22:33	90-12-0	
2-Methylnaphthalene	ND	ug/L	9.1	1.7	1	09/06/22 12:00	09/06/22 22:33	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	9.1	1.7	1	09/06/22 12:00	09/06/22 22:33	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	9.1	1.1	1	09/06/22 12:00	09/06/22 22:33	15831-10-4	
Naphthalene	ND	ug/L	9.1	1.9	1	09/06/22 12:00	09/06/22 22:33	91-20-3	
2-Nitroaniline	ND	ug/L	18.2	2.7	1	09/06/22 12:00	09/06/22 22:33	88-74-4	
3-Nitroaniline	ND	ug/L	18.2	3.4	1	09/06/22 12:00	09/06/22 22:33	99-09-2	
4-Nitroaniline	ND	ug/L	18.2	4.6	1	09/06/22 12:00	09/06/22 22:33	100-01-6	
Nitrobenzene	ND	ug/L	9.1	1.7	1	09/06/22 12:00	09/06/22 22:33	98-95-3	
2-Nitrophenol	ND	ug/L	9.1	1.3	1	09/06/22 12:00	09/06/22 22:33	88-75-5	
4-Nitrophenol	ND	ug/L	45.5	6.0	1	09/06/22 12:00	09/06/22 22:33	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	9.1	1.7	1	09/06/22 12:00	09/06/22 22:33	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	9.1	1.2	1	09/06/22 12:00	09/06/22 22:33	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	9.1	2.7	1	09/06/22 12:00	09/06/22 22:33	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	9.1	1.0	1	09/06/22 12:00	09/06/22 22:33	108-60-1	
Pentachlorophenol	ND	ug/L	18.2	3.4	1	09/06/22 12:00	09/06/22 22:33	87-86-5	

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### ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623225

**Sample: MW-3A**      **Lab ID: 92623225001**      Collected: 08/30/22 16:15      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	9.1	1.8	1	09/06/22 12:00	09/06/22 22:33	85-01-8	
Phenol	ND	ug/L	9.1	1.2	1	09/06/22 12:00	09/06/22 22:33	108-95-2	
Pyrene	ND	ug/L	9.1	2.0	1	09/06/22 12:00	09/06/22 22:33	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	9.1	1.6	1	09/06/22 12:00	09/06/22 22:33	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	9.1	1.3	1	09/06/22 12:00	09/06/22 22:33	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	9.1	1.4	1	09/06/22 12:00	09/06/22 22:33	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	43	%	10-144		1	09/06/22 12:00	09/06/22 22:33	4165-60-0	
2-Fluorobiphenyl (S)	26	%	10-130		1	09/06/22 12:00	09/06/22 22:33	321-60-8	
Terphenyl-d14 (S)	120	%	34-163		1	09/06/22 12:00	09/06/22 22:33	1718-51-0	
Phenol-d6 (S)	16	%	10-130		1	09/06/22 12:00	09/06/22 22:33	13127-88-3	
2-Fluorophenol (S)	12	%	10-130		1	09/06/22 12:00	09/06/22 22:33	367-12-4	
2,4,6-Tribromophenol (S)	42	%	10-144		1	09/06/22 12:00	09/06/22 22:33	118-79-6	
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/07/22 21:56	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/07/22 21:56	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/07/22 21:56	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/07/22 21:56	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/07/22 21:56	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/07/22 21:56	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/07/22 21:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/07/22 21:56	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/07/22 21:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/07/22 21:56	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/07/22 21:56	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/07/22 21:56	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/07/22 21:56	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 21:56	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 21:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/07/22 21:56	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/07/22 21:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/07/22 21:56	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/07/22 21:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 21:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 21:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/07/22 21:56	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/07/22 21:56	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/07/22 21:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 21:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/07/22 21:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 21:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/07/22 21:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/07/22 21:56	78-87-5	

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-3A**      **Lab ID: 92623225001**      Collected: 08/30/22 16:15      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/07/22 21:56	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/07/22 21:56	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/07/22 21:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 21:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 21:56	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/07/22 21:56	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/07/22 21:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/07/22 21:56	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/07/22 21:56	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/07/22 21:56	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/07/22 21:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/07/22 21:56	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/07/22 21:56	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/07/22 21:56	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/07/22 21:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/07/22 21:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/07/22 21:56	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/07/22 21:56	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/07/22 21:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/07/22 21:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/07/22 21:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/07/22 21:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 21:56	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 21:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/07/22 21:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/07/22 21:56	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/07/22 21:56	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/07/22 21:56	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/07/22 21:56	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/07/22 21:56	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/07/22 21:56	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	99	%	70-130		1		09/07/22 21:56	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		09/07/22 21:56	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		09/07/22 21:56	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/01/22 16:28	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		09/01/22 16:28	17060-07-0	
Toluene-d8 (S)	93	%	70-130		1		09/01/22 16:28	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

Sample: MW-3A		Lab ID: 92623225001		Collected: 08/30/22 16:15	Received: 08/31/22 13:45	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	mg/L	0.000100	0.000040 0	1	09/20/22 15:05	09/20/22 15:05	18540-29-9	P4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	<b>952</b>	mg/L	50.0	50.0	1		09/01/22 13:59			
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville								
Chloride	<b>42.3</b>	mg/L	1.0	0.60	1		09/01/22 11:48	16887-00-6		
Fluoride	<b>0.13</b>	mg/L	0.10	0.050	1		09/01/22 11:48	16984-48-8		
Nitrate as N	ND	mg/L	0.10	0.060	1		09/01/22 11:48	14797-55-8		
Sulfate	<b>290</b>	mg/L	6.0	3.0	6		09/01/22 12:31	14808-79-8		

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## ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623225

**Sample: MW-4A**      **Lab ID: 92623225002**      Collected: 08/31/22 09:50      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Barium	60.6	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 21:47	7440-39-3	
Boron	89.7	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 21:47	7440-42-8	
Manganese	102	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 21:47	7439-96-5	
Strontium	393	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 21:47	7440-24-6	
Zinc	ND	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 21:47	7440-66-6	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Antimony	ND	ug/L	1.0	0.20	1	09/02/22 13:10	09/06/22 23:41	7440-36-0	
Arsenic	0.18J	ug/L	1.0	0.087	1	09/02/22 13:10	09/06/22 23:41	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/02/22 13:10	09/06/22 23:41	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/02/22 13:10	09/06/22 23:41	7440-43-9	
Chromium	0.52J	ug/L	1.0	0.50	1	09/02/22 13:10	09/06/22 23:41	7440-47-3	
Cobalt	ND	ug/L	1.0	0.050	1	09/02/22 13:10	09/06/22 23:41	7440-48-4	
Copper	ND	ug/L	2.0	1.1	1	09/02/22 13:10	09/06/22 23:41	7440-50-8	
Lithium	0.58J	ug/L	2.5	0.50	1	09/02/22 13:10	09/06/22 23:41	7439-93-2	
Molybdenum	0.21J	ug/L	1.0	0.13	1	09/02/22 13:10	09/06/22 23:41	7439-98-7	
Nickel	0.90J	ug/L	1.0	0.42	1	09/02/22 13:10	09/06/22 23:41	7440-02-0	
Selenium	0.081J	ug/L	2.0	0.072	1	09/02/22 13:10	09/06/22 23:41	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/02/22 13:10	09/06/22 23:41	7440-28-0	
Vanadium	ND	ug/L	1.0	0.25	1	09/02/22 13:10	09/06/22 23:41	7440-62-2	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A									
Pace Analytical Services - Asheville									
Mercury	ND	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:18	7439-97-6	
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 13:53	83-32-9	
Acenaphthylene	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 13:53	208-96-8	
Aniline	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 13:53	62-53-3	
Anthracene	ND	ug/L	10.0	2.3	1	09/06/22 16:00	09/07/22 13:53	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	2.7	1	09/06/22 16:00	09/07/22 13:53	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	2.8	1	09/06/22 16:00	09/07/22 13:53	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	2.6	1	09/06/22 16:00	09/07/22 13:53	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	2.8	1	09/06/22 16:00	09/07/22 13:53	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	2.7	1	09/06/22 16:00	09/07/22 13:53	207-08-9	
Benzoic Acid	ND	ug/L	50.0	22.0	1	09/06/22 16:00	09/07/22 13:53	65-85-0	
Benzyl alcohol	ND	ug/L	20.0	2.9	1	09/06/22 16:00	09/07/22 13:53	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.8	1	09/06/22 16:00	09/07/22 13:53	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	3.1	1	09/06/22 16:00	09/07/22 13:53	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	10.0	3.3	1	09/06/22 16:00	09/07/22 13:53	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	3.6	1	09/06/22 16:00	09/07/22 13:53	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.8	1	09/06/22 16:00	09/07/22 13:53	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 13:53	111-44-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-4A**      **Lab ID: 92623225002**      Collected: 08/31/22 09:50      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b> Analytical Method: EPA 8270E      Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
2-Chloronaphthalene	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 13:53	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.2	1	09/06/22 16:00	09/07/22 13:53	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 13:53	7005-72-3	
Chrysene	ND	ug/L	10.0	2.8	1	09/06/22 16:00	09/07/22 13:53	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	3.0	1	09/06/22 16:00	09/07/22 13:53	53-70-3	
Dibenzofuran	ND	ug/L	10.0	2.1	1	09/06/22 16:00	09/07/22 13:53	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1.8	1	09/06/22 16:00	09/07/22 13:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 13:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 13:53	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	8.1	1	09/06/22 16:00	09/07/22 13:53	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 13:53	120-83-2	
Diethylphthalate	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 13:53	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 13:53	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	2.1	1	09/06/22 16:00	09/07/22 13:53	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	2.2	1	09/06/22 16:00	09/07/22 13:53	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	7.8	1	09/06/22 16:00	09/07/22 13:53	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	26.0	1	09/06/22 16:00	09/07/22 13:53	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 13:53	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 13:53	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	3.9	1	09/06/22 16:00	09/07/22 13:53	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	3.7	1	09/06/22 16:00	09/07/22 13:53	117-81-7	
Fluoranthene	ND	ug/L	10.0	2.2	1	09/06/22 16:00	09/07/22 13:53	206-44-0	
Fluorene	ND	ug/L	10.0	2.1	1	09/06/22 16:00	09/07/22 13:53	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.8	1	09/06/22 16:00	09/07/22 13:53	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	2.2	1	09/06/22 16:00	09/07/22 13:53	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 13:53	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 13:53	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	2.9	1	09/06/22 16:00	09/07/22 13:53	193-39-5	
Isophorone	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 13:53	78-59-1	
1-Methylnaphthalene	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 13:53	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 13:53	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 13:53	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1.2	1	09/06/22 16:00	09/07/22 13:53	15831-10-4	
Naphthalene	ND	ug/L	10.0	2.1	1	09/06/22 16:00	09/07/22 13:53	91-20-3	
2-Nitroaniline	ND	ug/L	20.0	3.0	1	09/06/22 16:00	09/07/22 13:53	88-74-4	
3-Nitroaniline	ND	ug/L	20.0	3.8	1	09/06/22 16:00	09/07/22 13:53	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	5.1	1	09/06/22 16:00	09/07/22 13:53	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 13:53	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 13:53	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	6.6	1	09/06/22 16:00	09/07/22 13:53	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 13:53	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1.3	1	09/06/22 16:00	09/07/22 13:53	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	3.0	1	09/06/22 16:00	09/07/22 13:53	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.2	1	09/06/22 16:00	09/07/22 13:53	108-60-1	
Pentachlorophenol	ND	ug/L	20.0	3.8	1	09/06/22 16:00	09/07/22 13:53	87-86-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-4A**      **Lab ID: 92623225002**      Collected: 08/31/22 09:50      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 13:53	85-01-8	
Phenol	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 13:53	108-95-2	
Pyrene	ND	ug/L	10.0	2.2	1	09/06/22 16:00	09/07/22 13:53	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 13:53	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 13:53	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 13:53	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	64	%	10-144		1	09/06/22 16:00	09/07/22 13:53	4165-60-0	
2-Fluorobiphenyl (S)	54	%	10-130		1	09/06/22 16:00	09/07/22 13:53	321-60-8	
Terphenyl-d14 (S)	106	%	34-163		1	09/06/22 16:00	09/07/22 13:53	1718-51-0	
Phenol-d6 (S)	42	%	10-130		1	09/06/22 16:00	09/07/22 13:53	13127-88-3	
2-Fluorophenol (S)	33	%	10-130		1	09/06/22 16:00	09/07/22 13:53	367-12-4	
2,4,6-Tribromophenol (S)	46	%	10-144		1	09/06/22 16:00	09/07/22 13:53	118-79-6	
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/08/22 00:24	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/08/22 00:24	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/08/22 00:24	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/08/22 00:24	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/08/22 00:24	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/08/22 00:24	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/08/22 00:24	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/08/22 00:24	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/08/22 00:24	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/08/22 00:24	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/08/22 00:24	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/08/22 00:24	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/08/22 00:24	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/08/22 00:24	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/08/22 00:24	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/08/22 00:24	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/08/22 00:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/08/22 00:24	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/08/22 00:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/08/22 00:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/08/22 00:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/08/22 00:24	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/08/22 00:24	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/08/22 00:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/08/22 00:24	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/08/22 00:24	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/08/22 00:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/08/22 00:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/08/22 00:24	78-87-5	

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-4A**      **Lab ID: 92623225002**      Collected: 08/31/22 09:50      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/08/22 00:24	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/08/22 00:24	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/08/22 00:24	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/08/22 00:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/08/22 00:24	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/08/22 00:24	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/08/22 00:24	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/08/22 00:24	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/08/22 00:24	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/08/22 00:24	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/08/22 00:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/08/22 00:24	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/08/22 00:24	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/08/22 00:24	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/08/22 00:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/08/22 00:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/08/22 00:24	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/08/22 00:24	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/08/22 00:24	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/08/22 00:24	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/08/22 00:24	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/08/22 00:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/08/22 00:24	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/08/22 00:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/08/22 00:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/08/22 00:24	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/08/22 00:24	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/08/22 00:24	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/08/22 00:24	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/08/22 00:24	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/08/22 00:24	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		09/08/22 00:24	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		09/08/22 00:24	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		09/08/22 00:24	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/01/22 16:47	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		09/01/22 16:47	17060-07-0	
Toluene-d8 (S)	93	%	70-130		1		09/01/22 16:47	2037-26-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

Sample: MW-4A		Lab ID: 92623225002		Collected: 08/31/22 09:50		Received: 08/31/22 13:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet							
Chromium, Hexavalent	<b>0.000303</b>	mg/L	0.000100	0.000040 0	1	09/20/22 15:13	09/20/22 15:13	18540-29-9	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>294</b>	mg/L	25.0	25.0	1		09/01/22 14:02		
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	<b>21.8</b>	mg/L	1.0	0.60	1		09/01/22 12:02	16887-00-6	
Fluoride	<b>0.097J</b>	mg/L	0.10	0.050	1		09/01/22 12:02	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.060	1		09/01/22 12:02	14797-55-8	
Sulfate	<b>83.6</b>	mg/L	1.0	0.50	1		09/01/22 12:02	14808-79-8	

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-5**      **Lab ID: 92623225003**      Collected: 08/30/22 13:25      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Barium	80.2	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:05	7440-39-3	
Boron	ND	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 22:05	7440-42-8	
Manganese	614	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 22:05	7439-96-5	
Strontium	273	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:05	7440-24-6	
Zinc	ND	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 22:05	7440-66-6	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Antimony	ND	ug/L	1.0	0.20	1	09/02/22 13:10	09/06/22 23:45	7440-36-0	
Arsenic	0.25J	ug/L	1.0	0.087	1	09/02/22 13:10	09/06/22 23:45	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/02/22 13:10	09/06/22 23:45	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/02/22 13:10	09/06/22 23:45	7440-43-9	
Chromium	ND	ug/L	1.0	0.50	1	09/02/22 13:10	09/06/22 23:45	7440-47-3	
Cobalt	0.49J	ug/L	1.0	0.050	1	09/02/22 13:10	09/06/22 23:45	7440-48-4	
Copper	ND	ug/L	2.0	1.1	1	09/02/22 13:10	09/06/22 23:45	7440-50-8	
Lithium	2.0J	ug/L	2.5	0.50	1	09/02/22 13:10	09/06/22 23:45	7439-93-2	
Molybdenum	0.18J	ug/L	1.0	0.13	1	09/02/22 13:10	09/06/22 23:45	7439-98-7	
Nickel	ND	ug/L	1.0	0.42	1	09/02/22 13:10	09/06/22 23:45	7440-02-0	
Selenium	ND	ug/L	2.0	0.072	1	09/02/22 13:10	09/06/22 23:45	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/02/22 13:10	09/06/22 23:45	7440-28-0	
Vanadium	ND	ug/L	1.0	0.25	1	09/02/22 13:10	09/06/22 23:45	7440-62-2	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Asheville									
Mercury	ND	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:21	7439-97-6	
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	10.0	2.0	1	09/02/22 16:47	09/03/22 11:35	83-32-9	
Acenaphthylene	ND	ug/L	10.0	2.0	1	09/02/22 16:47	09/03/22 11:35	208-96-8	
Aniline	ND	ug/L	10.0	1.6	1	09/02/22 16:47	09/03/22 11:35	62-53-3	
Anthracene	ND	ug/L	10.0	2.3	1	09/02/22 16:47	09/03/22 11:35	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	2.7	1	09/02/22 16:47	09/03/22 11:35	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	2.8	1	09/02/22 16:47	09/03/22 11:35	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	2.6	1	09/02/22 16:47	09/03/22 11:35	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	2.8	1	09/02/22 16:47	09/03/22 11:35	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	2.7	1	09/02/22 16:47	09/03/22 11:35	207-08-9	
Benzoic Acid	ND	ug/L	50.0	22.0	1	09/02/22 16:47	09/03/22 11:35	65-85-0	
Benzyl alcohol	ND	ug/L	20.0	2.9	1	09/02/22 16:47	09/03/22 11:35	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.8	1	09/02/22 16:47	09/03/22 11:35	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	3.1	1	09/02/22 16:47	09/03/22 11:35	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	10.0	3.3	1	09/02/22 16:47	09/03/22 11:35	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	3.6	1	09/02/22 16:47	09/03/22 11:35	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.8	1	09/02/22 16:47	09/03/22 11:35	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.9	1	09/02/22 16:47	09/03/22 11:35	111-44-4	

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### ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623225

**Sample: MW-5**      **Lab ID: 92623225003**      Collected: 08/30/22 13:25      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b> Analytical Method: EPA 8270E      Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
2-Chloronaphthalene	ND	ug/L	10.0	1.7	1	09/02/22 16:47	09/03/22 11:35	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.2	1	09/02/22 16:47	09/03/22 11:35	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	2.0	1	09/02/22 16:47	09/03/22 11:35	7005-72-3	
Chrysene	ND	ug/L	10.0	2.8	1	09/02/22 16:47	09/03/22 11:35	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	3.0	1	09/02/22 16:47	09/03/22 11:35	53-70-3	
Dibenzofuran	ND	ug/L	10.0	2.1	1	09/02/22 16:47	09/03/22 11:35	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1.8	1	09/02/22 16:47	09/03/22 11:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1.6	1	09/02/22 16:47	09/03/22 11:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1.7	1	09/02/22 16:47	09/03/22 11:35	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	8.1	1	09/02/22 16:47	09/03/22 11:35	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.4	1	09/02/22 16:47	09/03/22 11:35	120-83-2	
Diethylphthalate	ND	ug/L	10.0	2.0	1	09/02/22 16:47	09/03/22 11:35	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	1.7	1	09/02/22 16:47	09/03/22 11:35	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	2.1	1	09/02/22 16:47	09/03/22 11:35	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	2.2	1	09/02/22 16:47	09/03/22 11:35	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	7.8	1	09/02/22 16:47	09/03/22 11:35	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	26.0	1	09/02/22 16:47	09/03/22 11:35	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.6	1	09/02/22 16:47	09/03/22 11:35	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	09/02/22 16:47	09/03/22 11:35	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	3.9	1	09/02/22 16:47	09/03/22 11:35	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	3.7	1	09/02/22 16:47	09/03/22 11:35	117-81-7	
Fluoranthene	ND	ug/L	10.0	2.2	1	09/02/22 16:47	09/03/22 11:35	206-44-0	
Fluorene	ND	ug/L	10.0	2.1	1	09/02/22 16:47	09/03/22 11:35	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.8	1	09/02/22 16:47	09/03/22 11:35	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	2.2	1	09/02/22 16:47	09/03/22 11:35	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	1.6	1	09/02/22 16:47	09/03/22 11:35	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.4	1	09/02/22 16:47	09/03/22 11:35	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	2.9	1	09/02/22 16:47	09/03/22 11:35	193-39-5	
Isophorone	ND	ug/L	10.0	1.7	1	09/02/22 16:47	09/03/22 11:35	78-59-1	
1-Methylnaphthalene	ND	ug/L	10.0	2.0	1	09/02/22 16:47	09/03/22 11:35	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1.9	1	09/02/22 16:47	09/03/22 11:35	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1.9	1	09/02/22 16:47	09/03/22 11:35	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1.2	1	09/02/22 16:47	09/03/22 11:35	15831-10-4	
Naphthalene	ND	ug/L	10.0	2.1	1	09/02/22 16:47	09/03/22 11:35	91-20-3	
2-Nitroaniline	ND	ug/L	20.0	3.0	1	09/02/22 16:47	09/03/22 11:35	88-74-4	
3-Nitroaniline	ND	ug/L	20.0	3.8	1	09/02/22 16:47	09/03/22 11:35	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	5.1	1	09/02/22 16:47	09/03/22 11:35	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.9	1	09/02/22 16:47	09/03/22 11:35	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.4	1	09/02/22 16:47	09/03/22 11:35	88-75-5	v1
4-Nitrophenol	ND	ug/L	50.0	6.6	1	09/02/22 16:47	09/03/22 11:35	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1.9	1	09/02/22 16:47	09/03/22 11:35	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1.3	1	09/02/22 16:47	09/03/22 11:35	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	3.0	1	09/02/22 16:47	09/03/22 11:35	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.2	1	09/02/22 16:47	09/03/22 11:35	108-60-1	
Pentachlorophenol	ND	ug/L	20.0	3.8	1	09/02/22 16:47	09/03/22 11:35	87-86-5	

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### ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623225

**Sample: MW-5**      **Lab ID: 92623225003**      Collected: 08/30/22 13:25      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	10.0	2.0	1	09/02/22 16:47	09/03/22 11:35	85-01-8	
Phenol	ND	ug/L	10.0	1.4	1	09/02/22 16:47	09/03/22 11:35	108-95-2	
Pyrene	ND	ug/L	10.0	2.2	1	09/02/22 16:47	09/03/22 11:35	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1.7	1	09/02/22 16:47	09/03/22 11:35	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1.4	1	09/02/22 16:47	09/03/22 11:35	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.6	1	09/02/22 16:47	09/03/22 11:35	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	75	%	10-144		1	09/02/22 16:47	09/03/22 11:35	4165-60-0	
2-Fluorobiphenyl (S)	39	%	10-130		1	09/02/22 16:47	09/03/22 11:35	321-60-8	
Terphenyl-d14 (S)	115	%	34-163		1	09/02/22 16:47	09/03/22 11:35	1718-51-0	
Phenol-d6 (S)	32	%	10-130		1	09/02/22 16:47	09/03/22 11:35	13127-88-3	
2-Fluorophenol (S)	20	%	10-130		1	09/02/22 16:47	09/03/22 11:35	367-12-4	
2,4,6-Tribromophenol (S)	5	%	10-144		1	09/02/22 16:47	09/03/22 11:35	118-79-6	S0
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/07/22 22:14	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/07/22 22:14	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/07/22 22:14	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/07/22 22:14	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/07/22 22:14	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/07/22 22:14	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/07/22 22:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/07/22 22:14	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/07/22 22:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/07/22 22:14	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/07/22 22:14	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/07/22 22:14	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/07/22 22:14	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 22:14	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 22:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/07/22 22:14	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/07/22 22:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/07/22 22:14	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/07/22 22:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 22:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 22:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/07/22 22:14	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/07/22 22:14	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/07/22 22:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 22:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/07/22 22:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 22:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/07/22 22:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/07/22 22:14	78-87-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-5**      **Lab ID: 92623225003**      Collected: 08/30/22 13:25      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/07/22 22:14	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/07/22 22:14	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/07/22 22:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 22:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 22:14	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/07/22 22:14	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/07/22 22:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/07/22 22:14	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/07/22 22:14	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/07/22 22:14	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/07/22 22:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/07/22 22:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/07/22 22:14	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/07/22 22:14	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/07/22 22:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/07/22 22:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/07/22 22:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/07/22 22:14	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/07/22 22:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/07/22 22:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/07/22 22:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/07/22 22:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 22:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 22:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/07/22 22:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/07/22 22:14	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/07/22 22:14	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/07/22 22:14	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/07/22 22:14	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/07/22 22:14	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/07/22 22:14	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	100	%	70-130		1		09/07/22 22:14	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		09/07/22 22:14	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		09/07/22 22:14	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/01/22 17:07	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		09/01/22 17:07	17060-07-0	
Toluene-d8 (S)	92	%	70-130		1		09/01/22 17:07	2037-26-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

Sample: MW-5		Lab ID: 92623225003		Collected: 08/30/22 13:25		Received: 08/31/22 13:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet							
Chromium, Hexavalent	ND	mg/L	0.000100	0.000040 0	1	09/20/22 15:20	09/20/22 15:20	18540-29-9	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>482</b>	mg/L	50.0	50.0	1		09/01/22 14:00		
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	<b>89.0</b>	mg/L	1.0	0.60	1		09/01/22 10:50	16887-00-6	
Fluoride	<b>0.10</b>	mg/L	0.10	0.050	1		09/01/22 10:50	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.060	1		09/01/22 10:50	14797-55-8	
Sulfate	<b>43.9</b>	mg/L	1.0	0.50	1		09/01/22 10:50	14808-79-8	

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## ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623225

Sample: MW-6		Lab ID: 92623225004		Collected: 08/30/22 15:10		Received: 08/31/22 13:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Barium	214	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:08	7440-39-3	
Boron	34.7J	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 22:08	7440-42-8	
Manganese	1430	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 22:08	7439-96-5	
Strontium	459	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:08	7440-24-6	
Zinc	ND	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 22:08	7440-66-6	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Antimony	ND	ug/L	1.0	0.20	1	09/02/22 13:10	09/06/22 23:49	7440-36-0	
Arsenic	ND	ug/L	1.0	0.087	1	09/02/22 13:10	09/06/22 23:49	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/02/22 13:10	09/06/22 23:49	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/02/22 13:10	09/06/22 23:49	7440-43-9	
Chromium	0.58J	ug/L	1.0	0.50	1	09/02/22 13:10	09/06/22 23:49	7440-47-3	
Cobalt	0.10J	ug/L	1.0	0.050	1	09/02/22 13:10	09/06/22 23:49	7440-48-4	
Copper	ND	ug/L	2.0	1.1	1	09/02/22 13:10	09/06/22 23:49	7440-50-8	
Lithium	1.7J	ug/L	2.5	0.50	1	09/02/22 13:10	09/06/22 23:49	7439-93-2	
Molybdenum	ND	ug/L	1.0	0.13	1	09/02/22 13:10	09/06/22 23:49	7439-98-7	
Nickel	ND	ug/L	1.0	0.42	1	09/02/22 13:10	09/06/22 23:49	7440-02-0	
Selenium	ND	ug/L	2.0	0.072	1	09/02/22 13:10	09/06/22 23:49	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/02/22 13:10	09/06/22 23:49	7440-28-0	
Vanadium	1.3	ug/L	1.0	0.25	1	09/02/22 13:10	09/06/22 23:49	7440-62-2	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Asheville									
Mercury	ND	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:24	7439-97-6	
<b>8270E RVE</b>									
Analytical Method: EPA 8270E Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	10.0	2.0	1	09/06/22 12:00	09/06/22 22:58	83-32-9	
Acenaphthylene	ND	ug/L	10.0	2.0	1	09/06/22 12:00	09/06/22 22:58	208-96-8	
Aniline	ND	ug/L	10.0	1.6	1	09/06/22 12:00	09/06/22 22:58	62-53-3	
Anthracene	ND	ug/L	10.0	2.3	1	09/06/22 12:00	09/06/22 22:58	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	2.7	1	09/06/22 12:00	09/06/22 22:58	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	2.8	1	09/06/22 12:00	09/06/22 22:58	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	2.6	1	09/06/22 12:00	09/06/22 22:58	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	2.8	1	09/06/22 12:00	09/06/22 22:58	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	2.7	1	09/06/22 12:00	09/06/22 22:58	207-08-9	
Benzoic Acid	ND	ug/L	50.0	22.0	1	09/06/22 12:00	09/06/22 22:58	65-85-0	
Benzyl alcohol	ND	ug/L	20.0	2.9	1	09/06/22 12:00	09/06/22 22:58	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.8	1	09/06/22 12:00	09/06/22 22:58	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	3.1	1	09/06/22 12:00	09/06/22 22:58	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	10.0	3.3	1	09/06/22 12:00	09/06/22 22:58	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	3.6	1	09/06/22 12:00	09/06/22 22:58	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.8	1	09/06/22 12:00	09/06/22 22:58	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.9	1	09/06/22 12:00	09/06/22 22:58	111-44-4	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

Sample: MW-6 Lab ID: 92623225004 Collected: 08/30/22 15:10 Received: 08/31/22 13:45 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
2-Chloronaphthalene	ND	ug/L	10.0	1.7	1	09/06/22 12:00	09/06/22 22:58	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.2	1	09/06/22 12:00	09/06/22 22:58	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	2.0	1	09/06/22 12:00	09/06/22 22:58	7005-72-3	
Chrysene	ND	ug/L	10.0	2.8	1	09/06/22 12:00	09/06/22 22:58	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	3.0	1	09/06/22 12:00	09/06/22 22:58	53-70-3	
Dibenzofuran	ND	ug/L	10.0	2.1	1	09/06/22 12:00	09/06/22 22:58	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1.8	1	09/06/22 12:00	09/06/22 22:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1.6	1	09/06/22 12:00	09/06/22 22:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1.7	1	09/06/22 12:00	09/06/22 22:58	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	8.1	1	09/06/22 12:00	09/06/22 22:58	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.4	1	09/06/22 12:00	09/06/22 22:58	120-83-2	
Diethylphthalate	ND	ug/L	10.0	2.0	1	09/06/22 12:00	09/06/22 22:58	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	1.7	1	09/06/22 12:00	09/06/22 22:58	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	2.1	1	09/06/22 12:00	09/06/22 22:58	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	2.2	1	09/06/22 12:00	09/06/22 22:58	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	7.8	1	09/06/22 12:00	09/06/22 22:58	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	26.0	1	09/06/22 12:00	09/06/22 22:58	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.6	1	09/06/22 12:00	09/06/22 22:58	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	09/06/22 12:00	09/06/22 22:58	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	3.9	1	09/06/22 12:00	09/06/22 22:58	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	3.7	1	09/06/22 12:00	09/06/22 22:58	117-81-7	
Fluoranthene	ND	ug/L	10.0	2.2	1	09/06/22 12:00	09/06/22 22:58	206-44-0	
Fluorene	ND	ug/L	10.0	2.1	1	09/06/22 12:00	09/06/22 22:58	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.8	1	09/06/22 12:00	09/06/22 22:58	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	2.2	1	09/06/22 12:00	09/06/22 22:58	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	1.6	1	09/06/22 12:00	09/06/22 22:58	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.4	1	09/06/22 12:00	09/06/22 22:58	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	2.9	1	09/06/22 12:00	09/06/22 22:58	193-39-5	
Isophorone	ND	ug/L	10.0	1.7	1	09/06/22 12:00	09/06/22 22:58	78-59-1	
1-Methylnaphthalene	ND	ug/L	10.0	2.0	1	09/06/22 12:00	09/06/22 22:58	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1.9	1	09/06/22 12:00	09/06/22 22:58	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1.9	1	09/06/22 12:00	09/06/22 22:58	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1.2	1	09/06/22 12:00	09/06/22 22:58	15831-10-4	
Naphthalene	ND	ug/L	10.0	2.1	1	09/06/22 12:00	09/06/22 22:58	91-20-3	
2-Nitroaniline	ND	ug/L	20.0	3.0	1	09/06/22 12:00	09/06/22 22:58	88-74-4	
3-Nitroaniline	ND	ug/L	20.0	3.8	1	09/06/22 12:00	09/06/22 22:58	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	5.1	1	09/06/22 12:00	09/06/22 22:58	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.9	1	09/06/22 12:00	09/06/22 22:58	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.4	1	09/06/22 12:00	09/06/22 22:58	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	6.6	1	09/06/22 12:00	09/06/22 22:58	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1.9	1	09/06/22 12:00	09/06/22 22:58	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1.3	1	09/06/22 12:00	09/06/22 22:58	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	3.0	1	09/06/22 12:00	09/06/22 22:58	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.2	1	09/06/22 12:00	09/06/22 22:58	108-60-1	
Pentachlorophenol	ND	ug/L	20.0	3.8	1	09/06/22 12:00	09/06/22 22:58	87-86-5	

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### ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623225

**Sample: MW-6**      **Lab ID: 92623225004**      Collected: 08/30/22 15:10      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	10.0	2.0	1	09/06/22 12:00	09/06/22 22:58	85-01-8	
Phenol	ND	ug/L	10.0	1.4	1	09/06/22 12:00	09/06/22 22:58	108-95-2	
Pyrene	ND	ug/L	10.0	2.2	1	09/06/22 12:00	09/06/22 22:58	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1.7	1	09/06/22 12:00	09/06/22 22:58	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1.4	1	09/06/22 12:00	09/06/22 22:58	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.6	1	09/06/22 12:00	09/06/22 22:58	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	39	%	10-144		1	09/06/22 12:00	09/06/22 22:58	4165-60-0	
2-Fluorobiphenyl (S)	25	%	10-130		1	09/06/22 12:00	09/06/22 22:58	321-60-8	
Terphenyl-d14 (S)	96	%	34-163		1	09/06/22 12:00	09/06/22 22:58	1718-51-0	
Phenol-d6 (S)	16	%	10-130		1	09/06/22 12:00	09/06/22 22:58	13127-88-3	
2-Fluorophenol (S)	9	%	10-130		1	09/06/22 12:00	09/06/22 22:58	367-12-4	S0
2,4,6-Tribromophenol (S)	19	%	10-144		1	09/06/22 12:00	09/06/22 22:58	118-79-6	
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/07/22 22:33	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/07/22 22:33	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/07/22 22:33	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/07/22 22:33	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/07/22 22:33	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/07/22 22:33	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/07/22 22:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/07/22 22:33	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/07/22 22:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/07/22 22:33	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/07/22 22:33	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/07/22 22:33	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/07/22 22:33	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 22:33	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 22:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/07/22 22:33	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/07/22 22:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/07/22 22:33	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/07/22 22:33	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 22:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 22:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/07/22 22:33	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/07/22 22:33	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/07/22 22:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 22:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/07/22 22:33	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 22:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/07/22 22:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/07/22 22:33	78-87-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-6**      **Lab ID: 92623225004**      Collected: 08/30/22 15:10      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/07/22 22:33	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/07/22 22:33	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/07/22 22:33	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 22:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 22:33	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/07/22 22:33	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/07/22 22:33	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/07/22 22:33	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/07/22 22:33	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/07/22 22:33	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/07/22 22:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/07/22 22:33	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/07/22 22:33	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/07/22 22:33	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/07/22 22:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/07/22 22:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/07/22 22:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/07/22 22:33	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/07/22 22:33	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/07/22 22:33	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/07/22 22:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/07/22 22:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 22:33	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 22:33	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/07/22 22:33	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/07/22 22:33	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/07/22 22:33	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/07/22 22:33	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/07/22 22:33	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/07/22 22:33	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/07/22 22:33	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		09/07/22 22:33	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		09/07/22 22:33	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		09/07/22 22:33	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/01/22 17:26	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		09/01/22 17:26	17060-07-0	
Toluene-d8 (S)	92	%	70-130		1		09/01/22 17:26	2037-26-5	

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## ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623225

Sample: MW-6		Lab ID: 92623225004		Collected: 08/30/22 15:10	Received: 08/31/22 13:45	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	mg/L	0.000100	0.000040 0	1	09/20/22 15:43	09/20/22 15:43	18540-29-9	P4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	<b>322</b>	mg/L	25.0	25.0	1		09/01/22 14:00			
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville								
Chloride	<b>35.7</b>	mg/L	1.0	0.60	1		09/01/22 11:33	16887-00-6		
Fluoride	<b>0.12</b>	mg/L	0.10	0.050	1		09/01/22 11:33	16984-48-8		
Nitrate as N	ND	mg/L	0.10	0.060	1		09/01/22 11:33	14797-55-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/01/22 11:33	14808-79-8		

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-9**      **Lab ID: 92623225005**      Collected: 08/31/22 11:10      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Barium	580	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:12	7440-39-3	
Boron	207	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 22:12	7440-42-8	
Manganese	5220	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 22:12	7439-96-5	
Strontium	2730	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:12	7440-24-6	
Zinc	ND	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 22:12	7440-66-6	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Antimony	ND	ug/L	1.0	0.20	1	09/02/22 13:10	09/06/22 23:53	7440-36-0	
Arsenic	0.84J	ug/L	1.0	0.087	1	09/02/22 13:10	09/06/22 23:53	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/02/22 13:10	09/06/22 23:53	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/02/22 13:10	09/06/22 23:53	7440-43-9	
Chromium	ND	ug/L	1.0	0.50	1	09/02/22 13:10	09/06/22 23:53	7440-47-3	
Cobalt	5.3	ug/L	1.0	0.050	1	09/02/22 13:10	09/06/22 23:53	7440-48-4	
Copper	1.3J	ug/L	2.0	1.1	1	09/02/22 13:10	09/06/22 23:53	7440-50-8	
Lithium	10.5	ug/L	2.5	0.50	1	09/02/22 13:10	09/06/22 23:53	7439-93-2	
Molybdenum	0.33J	ug/L	1.0	0.13	1	09/02/22 13:10	09/06/22 23:53	7439-98-7	
Nickel	ND	ug/L	1.0	0.42	1	09/02/22 13:10	09/06/22 23:53	7440-02-0	
Selenium	ND	ug/L	2.0	0.072	1	09/02/22 13:10	09/06/22 23:53	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/02/22 13:10	09/06/22 23:53	7440-28-0	
Vanadium	0.30J	ug/L	1.0	0.25	1	09/02/22 13:10	09/06/22 23:53	7440-62-2	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Asheville									
Mercury	ND	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:27	7439-97-6	
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:19	83-32-9	
Acenaphthylene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:19	208-96-8	
Aniline	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:19	62-53-3	
Anthracene	ND	ug/L	9.1	2.1	1	09/06/22 16:00	09/07/22 14:19	120-12-7	
Benzo(a)anthracene	ND	ug/L	9.1	2.4	1	09/06/22 16:00	09/07/22 14:19	56-55-3	
Benzo(a)pyrene	ND	ug/L	9.1	2.5	1	09/06/22 16:00	09/07/22 14:19	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	9.1	2.4	1	09/06/22 16:00	09/07/22 14:19	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	9.1	2.6	1	09/06/22 16:00	09/07/22 14:19	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	9.1	2.5	1	09/06/22 16:00	09/07/22 14:19	207-08-9	
Benzoic Acid	ND	ug/L	45.5	20.0	1	09/06/22 16:00	09/07/22 14:19	65-85-0	
Benzyl alcohol	ND	ug/L	18.2	2.6	1	09/06/22 16:00	09/07/22 14:19	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:19	101-55-3	
Butylbenzylphthalate	ND	ug/L	9.1	2.9	1	09/06/22 16:00	09/07/22 14:19	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	9.1	3.0	1	09/06/22 16:00	09/07/22 14:19	59-50-7	
4-Chloroaniline	ND	ug/L	18.2	3.3	1	09/06/22 16:00	09/07/22 14:19	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:19	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:19	111-44-4	

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-9**      **Lab ID: 92623225005**      Collected: 08/31/22 11:10      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>			Analytical Method: EPA 8270E    Preparation Method: EPA 3510C						
			Pace Analytical Services - Charlotte						
2-Chloronaphthalene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:19	91-58-7	
2-Chlorophenol	ND	ug/L	9.1	1.1	1	09/06/22 16:00	09/07/22 14:19	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:19	7005-72-3	
Chrysene	ND	ug/L	9.1	2.5	1	09/06/22 16:00	09/07/22 14:19	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	9.1	2.7	1	09/06/22 16:00	09/07/22 14:19	53-70-3	
Dibenzofuran	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:19	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:19	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	18.2	7.4	1	09/06/22 16:00	09/07/22 14:19	91-94-1	
2,4-Dichlorophenol	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 14:19	120-83-2	
Diethylphthalate	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:19	84-66-2	
2,4-Dimethylphenol	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:19	105-67-9	
Dimethylphthalate	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:19	131-11-3	
Di-n-butylphthalate	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 14:19	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	18.2	7.1	1	09/06/22 16:00	09/07/22 14:19	534-52-1	
2,4-Dinitrophenol	ND	ug/L	45.5	23.6	1	09/06/22 16:00	09/07/22 14:19	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:19	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:19	606-20-2	
Di-n-octylphthalate	ND	ug/L	9.1	3.6	1	09/06/22 16:00	09/07/22 14:19	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	5.5	3.4	1	09/06/22 16:00	09/07/22 14:19	117-81-7	
Fluoranthene	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 14:19	206-44-0	
Fluorene	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:19	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:19	87-68-3	
Hexachlorobenzene	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 14:19	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	9.1	1.4	1	09/06/22 16:00	09/07/22 14:19	77-47-4	
Hexachloroethane	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 14:19	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	9.1	2.6	1	09/06/22 16:00	09/07/22 14:19	193-39-5	
Isophorone	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:19	78-59-1	
1-Methylnaphthalene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:19	90-12-0	
2-Methylnaphthalene	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:19	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:19	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	9.1	1.1	1	09/06/22 16:00	09/07/22 14:19	15831-10-4	
Naphthalene	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:19	91-20-3	
2-Nitroaniline	ND	ug/L	18.2	2.7	1	09/06/22 16:00	09/07/22 14:19	88-74-4	
3-Nitroaniline	ND	ug/L	18.2	3.4	1	09/06/22 16:00	09/07/22 14:19	99-09-2	
4-Nitroaniline	ND	ug/L	18.2	4.6	1	09/06/22 16:00	09/07/22 14:19	100-01-6	
Nitrobenzene	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:19	98-95-3	
2-Nitrophenol	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 14:19	88-75-5	
4-Nitrophenol	ND	ug/L	45.5	6.0	1	09/06/22 16:00	09/07/22 14:19	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:19	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	9.1	1.2	1	09/06/22 16:00	09/07/22 14:19	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	9.1	2.7	1	09/06/22 16:00	09/07/22 14:19	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	9.1	1.0	1	09/06/22 16:00	09/07/22 14:19	108-60-1	
Pentachlorophenol	ND	ug/L	18.2	3.4	1	09/06/22 16:00	09/07/22 14:19	87-86-5	

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-9**      **Lab ID: 92623225005**      Collected: 08/31/22 11:10      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:19	85-01-8	
Phenol	ND	ug/L	9.1	1.2	1	09/06/22 16:00	09/07/22 14:19	108-95-2	
Pyrene	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 14:19	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:19	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 14:19	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	9.1	1.4	1	09/06/22 16:00	09/07/22 14:19	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	69	%	10-144		1	09/06/22 16:00	09/07/22 14:19	4165-60-0	
2-Fluorobiphenyl (S)	69	%	10-130		1	09/06/22 16:00	09/07/22 14:19	321-60-8	
Terphenyl-d14 (S)	97	%	34-163		1	09/06/22 16:00	09/07/22 14:19	1718-51-0	
Phenol-d6 (S)	33	%	10-130		1	09/06/22 16:00	09/07/22 14:19	13127-88-3	
2-Fluorophenol (S)	17	%	10-130		1	09/06/22 16:00	09/07/22 14:19	367-12-4	
2,4,6-Tribromophenol (S)	16	%	10-144		1	09/06/22 16:00	09/07/22 14:19	118-79-6	
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/08/22 00:42	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/08/22 00:42	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/08/22 00:42	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/08/22 00:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/08/22 00:42	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/08/22 00:42	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/08/22 00:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/08/22 00:42	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/08/22 00:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/08/22 00:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/08/22 00:42	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/08/22 00:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/08/22 00:42	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/08/22 00:42	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/08/22 00:42	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/08/22 00:42	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/08/22 00:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/08/22 00:42	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/08/22 00:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/08/22 00:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/08/22 00:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/08/22 00:42	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/08/22 00:42	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/08/22 00:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/08/22 00:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/08/22 00:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/08/22 00:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/08/22 00:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/08/22 00:42	78-87-5	

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### ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623225

**Sample: MW-9**      **Lab ID: 92623225005**      Collected: 08/31/22 11:10      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/08/22 00:42	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/08/22 00:42	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/08/22 00:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/08/22 00:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/08/22 00:42	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/08/22 00:42	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/08/22 00:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/08/22 00:42	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/08/22 00:42	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/08/22 00:42	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/08/22 00:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/08/22 00:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/08/22 00:42	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/08/22 00:42	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/08/22 00:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/08/22 00:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/08/22 00:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/08/22 00:42	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/08/22 00:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/08/22 00:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/08/22 00:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/08/22 00:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/08/22 00:42	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/08/22 00:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/08/22 00:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/08/22 00:42	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/08/22 00:42	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/08/22 00:42	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/08/22 00:42	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/08/22 00:42	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/08/22 00:42	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	100	%	70-130		1		09/08/22 00:42	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		09/08/22 00:42	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		09/08/22 00:42	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/01/22 17:45	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		09/01/22 17:45	17060-07-0	
Toluene-d8 (S)	92	%	70-130		1		09/01/22 17:45	2037-26-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

Sample: MW-9		Lab ID: 92623225005		Collected: 08/31/22 11:10		Received: 08/31/22 13:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet							
Chromium, Hexavalent	ND	mg/L	0.000100	0.000040 0	1	09/20/22 15:51	09/20/22 15:51	18540-29-9	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>530</b>	mg/L	50.0	50.0	1		09/01/22 14:02		
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	<b>51.7</b>	mg/L	1.0	0.60	1		09/01/22 12:17	16887-00-6	
Fluoride	<b>0.13</b>	mg/L	0.10	0.050	1		09/01/22 12:17	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.060	1		09/01/22 12:17	14797-55-8	
Sulfate	<b>3.2</b>	mg/L	1.0	0.50	1		09/01/22 12:17	14808-79-8	

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-11D**      **Lab ID: 92623225006**      Collected: 08/31/22 12:00      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Barium	19.6	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:15	7440-39-3	
Boron	157	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 22:15	7440-42-8	
Manganese	48.6	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 22:15	7439-96-5	
Strontium	580	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:15	7440-24-6	
Zinc	ND	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 22:15	7440-66-6	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Antimony	ND	ug/L	1.0	0.20	1	09/02/22 13:10	09/06/22 23:57	7440-36-0	
Arsenic	0.55J	ug/L	1.0	0.087	1	09/02/22 13:10	09/06/22 23:57	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/02/22 13:10	09/06/22 23:57	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/02/22 13:10	09/06/22 23:57	7440-43-9	
Chromium	ND	ug/L	1.0	0.50	1	09/02/22 13:10	09/06/22 23:57	7440-47-3	
Cobalt	0.15J	ug/L	1.0	0.050	1	09/02/22 13:10	09/06/22 23:57	7440-48-4	
Copper	ND	ug/L	2.0	1.1	1	09/02/22 13:10	09/06/22 23:57	7440-50-8	
Lithium	51.6	ug/L	2.5	0.50	1	09/02/22 13:10	09/06/22 23:57	7439-93-2	
Molybdenum	4.8	ug/L	1.0	0.13	1	09/02/22 13:10	09/06/22 23:57	7439-98-7	
Nickel	5.3	ug/L	1.0	0.42	1	09/02/22 13:10	09/06/22 23:57	7440-02-0	
Selenium	ND	ug/L	2.0	0.072	1	09/02/22 13:10	09/06/22 23:57	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/02/22 13:10	09/06/22 23:57	7440-28-0	
Vanadium	1.2	ug/L	1.0	0.25	1	09/02/22 13:10	09/06/22 23:57	7440-62-2	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Asheville									
Mercury	ND	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:29	7439-97-6	
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:45	83-32-9	
Acenaphthylene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:45	208-96-8	
Aniline	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:45	62-53-3	
Anthracene	ND	ug/L	9.1	2.1	1	09/06/22 16:00	09/07/22 14:45	120-12-7	
Benzo(a)anthracene	ND	ug/L	9.1	2.4	1	09/06/22 16:00	09/07/22 14:45	56-55-3	
Benzo(a)pyrene	ND	ug/L	9.1	2.5	1	09/06/22 16:00	09/07/22 14:45	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	9.1	2.4	1	09/06/22 16:00	09/07/22 14:45	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	9.1	2.6	1	09/06/22 16:00	09/07/22 14:45	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	9.1	2.5	1	09/06/22 16:00	09/07/22 14:45	207-08-9	
Benzoic Acid	ND	ug/L	45.5	20.0	1	09/06/22 16:00	09/07/22 14:45	65-85-0	
Benzyl alcohol	ND	ug/L	18.2	2.6	1	09/06/22 16:00	09/07/22 14:45	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:45	101-55-3	
Butylbenzylphthalate	ND	ug/L	9.1	2.9	1	09/06/22 16:00	09/07/22 14:45	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	9.1	3.0	1	09/06/22 16:00	09/07/22 14:45	59-50-7	
4-Chloroaniline	ND	ug/L	18.2	3.3	1	09/06/22 16:00	09/07/22 14:45	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:45	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:45	111-44-4	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-11D**      **Lab ID: 92623225006**      Collected: 08/31/22 12:00      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>			Analytical Method: EPA 8270E    Preparation Method: EPA 3510C						
			Pace Analytical Services - Charlotte						
2-Chloronaphthalene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:45	91-58-7	
2-Chlorophenol	ND	ug/L	9.1	1.1	1	09/06/22 16:00	09/07/22 14:45	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:45	7005-72-3	
Chrysene	ND	ug/L	9.1	2.5	1	09/06/22 16:00	09/07/22 14:45	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	9.1	2.7	1	09/06/22 16:00	09/07/22 14:45	53-70-3	
Dibenzofuran	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:45	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:45	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	18.2	7.4	1	09/06/22 16:00	09/07/22 14:45	91-94-1	
2,4-Dichlorophenol	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 14:45	120-83-2	
Diethylphthalate	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:45	84-66-2	
2,4-Dimethylphenol	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:45	105-67-9	
Dimethylphthalate	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:45	131-11-3	
Di-n-butylphthalate	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 14:45	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	18.2	7.1	1	09/06/22 16:00	09/07/22 14:45	534-52-1	
2,4-Dinitrophenol	ND	ug/L	45.5	23.6	1	09/06/22 16:00	09/07/22 14:45	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:45	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:45	606-20-2	
Di-n-octylphthalate	ND	ug/L	9.1	3.6	1	09/06/22 16:00	09/07/22 14:45	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	5.5	3.4	1	09/06/22 16:00	09/07/22 14:45	117-81-7	
Fluoranthene	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 14:45	206-44-0	
Fluorene	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:45	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:45	87-68-3	
Hexachlorobenzene	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 14:45	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	9.1	1.4	1	09/06/22 16:00	09/07/22 14:45	77-47-4	
Hexachloroethane	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 14:45	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	9.1	2.6	1	09/06/22 16:00	09/07/22 14:45	193-39-5	
Isophorone	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 14:45	78-59-1	
1-Methylnaphthalene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:45	90-12-0	
2-Methylnaphthalene	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:45	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:45	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	9.1	1.1	1	09/06/22 16:00	09/07/22 14:45	15831-10-4	
Naphthalene	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 14:45	91-20-3	
2-Nitroaniline	ND	ug/L	18.2	2.7	1	09/06/22 16:00	09/07/22 14:45	88-74-4	
3-Nitroaniline	ND	ug/L	18.2	3.4	1	09/06/22 16:00	09/07/22 14:45	99-09-2	
4-Nitroaniline	ND	ug/L	18.2	4.6	1	09/06/22 16:00	09/07/22 14:45	100-01-6	
Nitrobenzene	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:45	98-95-3	
2-Nitrophenol	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 14:45	88-75-5	
4-Nitrophenol	ND	ug/L	45.5	6.0	1	09/06/22 16:00	09/07/22 14:45	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 14:45	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	9.1	1.2	1	09/06/22 16:00	09/07/22 14:45	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	9.1	2.7	1	09/06/22 16:00	09/07/22 14:45	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	9.1	1.0	1	09/06/22 16:00	09/07/22 14:45	108-60-1	
Pentachlorophenol	ND	ug/L	18.2	3.4	1	09/06/22 16:00	09/07/22 14:45	87-86-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-11D**      **Lab ID: 92623225006**      Collected: 08/31/22 12:00      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 14:45	85-01-8	
Phenol	ND	ug/L	9.1	1.2	1	09/06/22 16:00	09/07/22 14:45	108-95-2	
Pyrene	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 14:45	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 14:45	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 14:45	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	9.1	1.4	1	09/06/22 16:00	09/07/22 14:45	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	59	%	10-144		1	09/06/22 16:00	09/07/22 14:45	4165-60-0	
2-Fluorobiphenyl (S)	47	%	10-130		1	09/06/22 16:00	09/07/22 14:45	321-60-8	
Terphenyl-d14 (S)	94	%	34-163		1	09/06/22 16:00	09/07/22 14:45	1718-51-0	
Phenol-d6 (S)	40	%	10-130		1	09/06/22 16:00	09/07/22 14:45	13127-88-3	
2-Fluorophenol (S)	38	%	10-130		1	09/06/22 16:00	09/07/22 14:45	367-12-4	
2,4,6-Tribromophenol (S)	44	%	10-144		1	09/06/22 16:00	09/07/22 14:45	118-79-6	
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/07/22 17:54	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/07/22 17:54	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/07/22 17:54	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/07/22 17:54	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/07/22 17:54	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/07/22 17:54	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/07/22 17:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/07/22 17:54	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/07/22 17:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/07/22 17:54	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/07/22 17:54	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/07/22 17:54	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/07/22 17:54	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 17:54	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 17:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/07/22 17:54	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/07/22 17:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/07/22 17:54	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/07/22 17:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 17:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 17:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/07/22 17:54	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/07/22 17:54	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/07/22 17:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 17:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/07/22 17:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 17:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/07/22 17:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/07/22 17:54	78-87-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

**Sample: MW-11D**      **Lab ID: 92623225006**      Collected: 08/31/22 12:00      Received: 08/31/22 13:45      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/07/22 17:54	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/07/22 17:54	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/07/22 17:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 17:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 17:54	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/07/22 17:54	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/07/22 17:54	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/07/22 17:54	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/07/22 17:54	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/07/22 17:54	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/07/22 17:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/07/22 17:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/07/22 17:54	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/07/22 17:54	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/07/22 17:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/07/22 17:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/07/22 17:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/07/22 17:54	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/07/22 17:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/07/22 17:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/07/22 17:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/07/22 17:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 17:54	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 17:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/07/22 17:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/07/22 17:54	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/07/22 17:54	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/07/22 17:54	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/07/22 17:54	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/07/22 17:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/07/22 17:54	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98	%	70-130		1		09/07/22 17:54	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		09/07/22 17:54	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		09/07/22 17:54	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/01/22 18:05	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		09/01/22 18:05	17060-07-0	
Toluene-d8 (S)	91	%	70-130		1		09/01/22 18:05	2037-26-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

Sample: MW-11D		Lab ID: 92623225006		Collected: 08/31/22 12:00	Received: 08/31/22 13:45	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	mg/L	0.000100	0.000040 0	1	09/20/22 15:59	09/20/22 15:59	18540-29-9		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	<b>408</b>	mg/L	25.0	25.0	1		09/01/22 14:02			
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville								
Chloride	<b>61.8</b>	mg/L	1.0	0.60	1		09/01/22 12:52	16887-00-6		
Fluoride	<b>0.068J</b>	mg/L	0.10	0.050	1		09/01/22 12:52	16984-48-8		
Nitrate as N	ND	mg/L	0.10	0.060	1		09/01/22 12:52	14797-55-8		
Sulfate	<b>21.4</b>	mg/L	1.0	0.50	1		09/01/22 12:52	14808-79-8		

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

Sample: Trip Blank-1 Lab ID: 92623225007 Collected: 08/30/22 00:00 Received: 08/31/22 13:45 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b> Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
Acetone	92.9	ug/L	25.0	5.1	1		09/06/22 16:35	67-64-1	T3
Benzene	ND	ug/L	1.0	0.34	1		09/06/22 16:35	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/06/22 16:35	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/06/22 16:35	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/06/22 16:35	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/06/22 16:35	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/06/22 16:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/06/22 16:35	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/06/22 16:35	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/06/22 16:35	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/06/22 16:35	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/06/22 16:35	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/06/22 16:35	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/06/22 16:35	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/06/22 16:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/06/22 16:35	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/06/22 16:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/06/22 16:35	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/06/22 16:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/06/22 16:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/06/22 16:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/06/22 16:35	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/06/22 16:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/06/22 16:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/06/22 16:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/06/22 16:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/06/22 16:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/06/22 16:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/06/22 16:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/06/22 16:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/06/22 16:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/06/22 16:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/06/22 16:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/06/22 16:35	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/06/22 16:35	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/06/22 16:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/06/22 16:35	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/06/22 16:35	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/06/22 16:35	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/06/22 16:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/06/22 16:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/06/22 16:35	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/06/22 16:35	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/06/22 16:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/06/22 16:35	630-20-6	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623225

Sample: Trip Blank-1      Lab ID: 92623225007      Collected: 08/30/22 00:00      Received: 08/31/22 13:45      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/06/22 16:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/06/22 16:35	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/06/22 16:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/06/22 16:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/06/22 16:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/06/22 16:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/06/22 16:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/06/22 16:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/06/22 16:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/06/22 16:35	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/06/22 16:35	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/06/22 16:35	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/06/22 16:35	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/06/22 16:35	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/06/22 16:35	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	96	%	70-130		1		09/06/22 16:35	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		09/06/22 16:35	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		09/06/22 16:35	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/01/22 16:09	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		09/01/22 16:09	17060-07-0	
Toluene-d8 (S)	93	%	70-130		1		09/01/22 16:09	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

QC Batch: 721990 Analysis Method: EPA 7470A  
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

METHOD BLANK: 3761823 Matrix: Water  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	09/09/22 11:32	

LABORATORY CONTROL SAMPLE: 3761824

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3761825 3761826

Parameter	Units	3761825		3761826		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623049003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	ug/L	ND	2.5	2.5	2.6	2.8	105	111	75-125	6	25

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

QC Batch: 721411 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

METHOD BLANK: 3758845 Matrix: Water  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	ND	5.0	3.5	09/19/22 20:50	
Boron	ug/L	ND	50.0	32.4	09/19/22 20:50	
Manganese	ug/L	ND	5.0	3.4	09/19/22 20:50	
Strontium	ug/L	ND	5.0	3.5	09/19/22 20:50	
Zinc	ug/L	ND	10.0	9.5	09/19/22 20:50	

LABORATORY CONTROL SAMPLE: 3758846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	500	506	101	80-120	
Boron	ug/L	500	486	97	80-120	
Manganese	ug/L	500	514	103	80-120	
Strontium	ug/L	500	510	102	80-120	
Zinc	ug/L	500	489	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3758847 3758848

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623291003 Result	Spike Conc.	Spike Conc.	Result						
Barium	ug/L	91.9	500	500	613	611	104	104	75-125	0	20
Boron	ug/L	857	500	500	1400	1380	109	105	75-125	2	20
Manganese	ug/L	903	500	500	1440	1420	107	103	75-125	1	20
Strontium	ug/L	615	500	500	1150	1130	107	102	75-125	2	20
Zinc	ug/L	ND	500	500	513	507	102	101	75-125	1	20

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

QC Batch: 721220 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3010A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

METHOD BLANK: 3757882 Matrix: Water  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.20	09/06/22 22:55	
Arsenic	ug/L	ND	1.0	0.087	09/06/22 22:55	
Beryllium	ug/L	ND	0.10	0.050	09/06/22 22:55	
Cadmium	ug/L	ND	0.20	0.060	09/06/22 22:55	
Chromium	ug/L	ND	1.0	0.50	09/06/22 22:55	
Cobalt	ug/L	ND	1.0	0.050	09/06/22 22:55	
Copper	ug/L	ND	2.0	1.1	09/06/22 22:55	
Lithium	ug/L	ND	2.5	0.50	09/06/22 22:55	
Molybdenum	ug/L	ND	1.0	0.13	09/06/22 22:55	
Nickel	ug/L	ND	1.0	0.42	09/06/22 22:55	
Selenium	ug/L	ND	2.0	0.072	09/06/22 22:55	
Thallium	ug/L	ND	0.47	0.050	09/06/22 22:55	
Vanadium	ug/L	ND	1.0	0.25	09/06/22 22:55	

LABORATORY CONTROL SAMPLE: 3757883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	50	49.8	100	80-120	
Arsenic	ug/L	50	49.0	98	80-120	
Beryllium	ug/L	50	50.2	100	80-120	
Cadmium	ug/L	50	50.1	100	80-120	
Chromium	ug/L	50	50.2	100	80-120	
Cobalt	ug/L	50	50.6	101	80-120	
Copper	ug/L	50	49.8	100	80-120	
Lithium	ug/L	50	48.7	97	80-120	
Molybdenum	ug/L	50	49.9	100	80-120	
Nickel	ug/L	50	50.3	101	80-120	
Selenium	ug/L	50	48.5	97	80-120	
Thallium	ug/L	25	24.8	99	80-120	
Vanadium	ug/L	50	52.4	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3757884 3757885

Parameter	Units	92623225001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	ug/L	ND	50	50	50.5	51.3	101	103	75-125	2	20	
Arsenic	ug/L	0.38J	50	50	49.5	49.8	98	99	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: TCH-009

Pace Project No.: 92623225

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3757884 3757885												
Parameter	Units	92623225001		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Beryllium	ug/L	ND	50	50	42.7	41.5	85	83	75-125	3	20	
Cadmium	ug/L	ND	50	50	48.5	48.6	97	97	75-125	0	20	
Chromium	ug/L	ND	50	50	50.3	50.6	100	101	75-125	1	20	
Cobalt	ug/L	0.38J	50	50	48.9	49.6	97	98	75-125	1	20	
Copper	ug/L	ND	50	50	48.0	48.4	94	95	75-125	1	20	
Lithium	ug/L	20.3	50	50	61.2	61.7	82	83	75-125	1	20	
Molybdenum	ug/L	0.83J	50	50	51.5	51.7	101	102	75-125	0	20	
Nickel	ug/L	0.77J	50	50	48.7	49.0	96	96	75-125	1	20	
Selenium	ug/L	7.0	50	50	53.9	53.7	94	93	75-125	0	20	
Thallium	ug/L	ND	25	25	25.3	25.4	101	102	75-125	0	20	
Vanadium	ug/L	2.5	50	50	54.1	54.4	103	104	75-125	1	20	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

QC Batch: 721285      Analysis Method: EPA 8260D  
QC Batch Method: EPA 8260D      Analysis Description: 8260D MSV Low Level  
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92623225007

METHOD BLANK: 3758246      Matrix: Water  
Associated Lab Samples: 92623225007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.31	09/06/22 15:40	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.33	09/06/22 15:40	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.22	09/06/22 15:40	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.32	09/06/22 15:40	
1,1-Dichloroethane	ug/L	ND	1.0	0.37	09/06/22 15:40	
1,1-Dichloroethene	ug/L	ND	1.0	0.35	09/06/22 15:40	
1,1-Dichloropropene	ug/L	ND	1.0	0.43	09/06/22 15:40	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.81	09/06/22 15:40	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.26	09/06/22 15:40	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.64	09/06/22 15:40	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	0.34	09/06/22 15:40	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	09/06/22 15:40	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.34	09/06/22 15:40	
1,2-Dichloroethane	ug/L	ND	1.0	0.32	09/06/22 15:40	
1,2-Dichloropropane	ug/L	ND	1.0	0.36	09/06/22 15:40	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.34	09/06/22 15:40	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	09/06/22 15:40	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	09/06/22 15:40	
2,2-Dichloropropane	ug/L	ND	1.0	0.39	09/06/22 15:40	
2-Butanone (MEK)	ug/L	ND	5.0	4.0	09/06/22 15:40	
2-Chlorotoluene	ug/L	ND	1.0	0.32	09/06/22 15:40	
2-Hexanone	ug/L	ND	5.0	0.48	09/06/22 15:40	
4-Chlorotoluene	ug/L	ND	1.0	0.32	09/06/22 15:40	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	2.7	09/06/22 15:40	
Acetone	ug/L	ND	25.0	5.1	09/06/22 15:40	
Benzene	ug/L	ND	1.0	0.34	09/06/22 15:40	
Bromobenzene	ug/L	ND	1.0	0.29	09/06/22 15:40	
Bromochloromethane	ug/L	ND	1.0	0.47	09/06/22 15:40	
Bromodichloromethane	ug/L	ND	1.0	0.31	09/06/22 15:40	
Bromoform	ug/L	ND	1.0	0.34	09/06/22 15:40	
Bromomethane	ug/L	ND	2.0	1.7	09/06/22 15:40	
Carbon tetrachloride	ug/L	ND	1.0	0.33	09/06/22 15:40	
Chlorobenzene	ug/L	ND	1.0	0.28	09/06/22 15:40	
Chloroethane	ug/L	ND	1.0	0.65	09/06/22 15:40	
Chloroform	ug/L	ND	1.0	0.43	09/06/22 15:40	
Chloromethane	ug/L	ND	1.0	0.54	09/06/22 15:40	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.38	09/06/22 15:40	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/06/22 15:40	
Dibromochloromethane	ug/L	ND	1.0	0.36	09/06/22 15:40	
Dibromomethane	ug/L	ND	1.0	0.39	09/06/22 15:40	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

METHOD BLANK: 3758246

Matrix: Water

Associated Lab Samples: 92623225007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	0.35	09/06/22 15:40	
Diisopropyl ether	ug/L	ND	1.0	0.31	09/06/22 15:40	
Ethylbenzene	ug/L	ND	1.0	0.30	09/06/22 15:40	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.5	09/06/22 15:40	
m&p-Xylene	ug/L	ND	2.0	0.71	09/06/22 15:40	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	09/06/22 15:40	
Methylene Chloride	ug/L	ND	5.0	2.0	09/06/22 15:40	
Naphthalene	ug/L	ND	1.0	0.64	09/06/22 15:40	
o-Xylene	ug/L	ND	1.0	0.34	09/06/22 15:40	
p-Isopropyltoluene	ug/L	ND	1.0	0.41	09/06/22 15:40	
Styrene	ug/L	ND	1.0	0.29	09/06/22 15:40	
Tetrachloroethene	ug/L	ND	1.0	0.29	09/06/22 15:40	
Toluene	ug/L	ND	1.0	0.48	09/06/22 15:40	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.40	09/06/22 15:40	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/06/22 15:40	
Trichloroethene	ug/L	ND	1.0	0.38	09/06/22 15:40	
Trichlorofluoromethane	ug/L	ND	1.0	0.30	09/06/22 15:40	
Vinyl acetate	ug/L	ND	2.0	1.3	09/06/22 15:40	
Vinyl chloride	ug/L	ND	1.0	0.39	09/06/22 15:40	
Xylene (Total)	ug/L	ND	1.0	0.34	09/06/22 15:40	
1,2-Dichloroethane-d4 (S)	%	96	70-130		09/06/22 15:40	
4-Bromofluorobenzene (S)	%	99	70-130		09/06/22 15:40	
Toluene-d8 (S)	%	99	70-130		09/06/22 15:40	

LABORATORY CONTROL SAMPLE: 3758247

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.3	101	70-130	
1,1,1-Trichloroethane	ug/L	50	51.2	102	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.2	100	70-130	
1,1,2-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1-Dichloroethane	ug/L	50	50.3	101	70-130	
1,1-Dichloroethene	ug/L	50	51.3	103	70-130	
1,1-Dichloropropene	ug/L	50	54.3	109	70-130	
1,2,3-Trichlorobenzene	ug/L	50	45.4	91	70-130	
1,2,3-Trichloropropane	ug/L	50	49.3	99	70-130	
1,2,4-Trichlorobenzene	ug/L	50	47.6	95	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	50.6	101	70-131	
1,2-Dibromoethane (EDB)	ug/L	50	51.0	102	70-130	
1,2-Dichlorobenzene	ug/L	50	48.8	98	70-130	
1,2-Dichloroethane	ug/L	50	49.6	99	70-130	
1,2-Dichloropropane	ug/L	50	50.2	100	70-130	
1,3-Dichlorobenzene	ug/L	50	49.5	99	70-130	
1,3-Dichloropropane	ug/L	50	49.5	99	70-130	

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### QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92623225

LABORATORY CONTROL SAMPLE: 3758247

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	48.5	97	70-130	
2,2-Dichloropropane	ug/L	50	52.0	104	68-135	
2-Butanone (MEK)	ug/L	100	102	102	70-134	
2-Chlorotoluene	ug/L	50	48.7	97	70-130	
2-Hexanone	ug/L	100	106	106	70-131	
4-Chlorotoluene	ug/L	50	48.4	97	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	105	105	70-130	
Acetone	ug/L	100	104	104	70-133	
Benzene	ug/L	50	49.2	98	70-130	
Bromobenzene	ug/L	50	47.9	96	70-130	
Bromochloromethane	ug/L	50	50.3	101	70-130	
Bromodichloromethane	ug/L	50	50.7	101	70-130	
Bromoform	ug/L	50	53.7	107	70-130	
Bromomethane	ug/L	50	53.6	107	45-151	
Carbon tetrachloride	ug/L	50	51.8	104	70-130	
Chlorobenzene	ug/L	50	49.9	100	70-130	
Chloroethane	ug/L	50	50.8	102	39-152	
Chloroform	ug/L	50	49.3	99	70-130	
Chloromethane	ug/L	50	48.8	98	58-130	
cis-1,2-Dichloroethene	ug/L	50	50.4	101	70-130	
cis-1,3-Dichloropropene	ug/L	50	51.8	104	70-130	
Dibromochloromethane	ug/L	50	51.8	104	70-130	
Dibromomethane	ug/L	50	49.5	99	70-130	
Dichlorodifluoromethane	ug/L	50	53.3	107	54-133	
Diisopropyl ether	ug/L	50	52.6	105	70-130	
Ethylbenzene	ug/L	50	48.7	97	70-130	
Hexachloro-1,3-butadiene	ug/L	50	50.8	102	70-135	
m&p-Xylene	ug/L	100	98.3	98	70-130	
Methyl-tert-butyl ether	ug/L	50	50.6	101	70-130	
Methylene Chloride	ug/L	50	47.5	95	66-130	
Naphthalene	ug/L	50	48.0	96	70-130	
o-Xylene	ug/L	50	48.8	98	70-130	
p-Isopropyltoluene	ug/L	50	50.7	101	70-130	
Styrene	ug/L	50	50.3	101	70-130	
Tetrachloroethene	ug/L	50	48.6	97	70-130	
Toluene	ug/L	50	48.4	97	70-130	
trans-1,2-Dichloroethene	ug/L	50	55.1	110	70-130	
trans-1,3-Dichloropropene	ug/L	50	52.0	104	70-130	
Trichloroethene	ug/L	50	51.9	104	70-130	
Trichlorofluoromethane	ug/L	50	43.4	87	62-130	
Vinyl acetate	ug/L	100	121	121	70-144	
Vinyl chloride	ug/L	50	54.0	108	62-130	
Xylene (Total)	ug/L	150	147	98	70-130	
1,2-Dichloroethane-d4 (S)	%			91	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3758248 3758249												
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92623390001 Result	Spike Conc.	Spike Conc.	MS Conc.							
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	20.9	22.2	105	111	70-141	6	30	
1,1,1-Trichloroethane	ug/L	ND	20	20	23.6	24.9	118	124	70-150	5	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	21.5	21.7	108	109	69-142	1	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	21.4	22.0	107	110	70-138	3	30	
1,1-Dichloroethane	ug/L	ND	20	20	24.0	24.9	120	124	70-150	3	30	
1,1-Dichloroethene	ug/L	ND	20	20	27.3	26.6	137	133	70-156	3	30	
1,1-Dichloropropene	ug/L	ND	20	20	25.3	26.6	127	133	70-150	5	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	18.1	18.7	91	94	70-148	3	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	21.2	20.8	106	104	70-140	2	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	19.5	20.3	97	101	70-146	4	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	19.0	19.1	95	96	68-146	1	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	21.7	22.5	109	112	70-138	3	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	20.9	22.0	104	110	70-141	5	30	
1,2-Dichloroethane	ug/L	ND	20	20	23.0	23.4	115	117	69-143	2	30	
1,2-Dichloropropane	ug/L	ND	20	20	22.8	23.9	114	120	68-156	5	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	20.8	22.3	104	112	70-143	7	30	
1,3-Dichloropropane	ug/L	ND	20	20	21.5	22.5	107	113	70-138	5	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	20.7	21.7	104	109	70-142	5	30	
2,2-Dichloropropane	ug/L	ND	20	20	24.1	25.1	121	126	52-170	4	30	
2-Butanone (MEK)	ug/L	ND	40	40	45.0	43.9	113	110	60-157	2	30	
2-Chlorotoluene	ug/L	ND	20	20	21.2	21.8	106	109	70-147	3	30	
2-Hexanone	ug/L	ND	40	40	43.9	43.8	110	109	68-146	0	30	
4-Chlorotoluene	ug/L	ND	20	20	21.3	21.3	107	107	70-142	0	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	44.1	44.2	110	110	70-141	0	30	
Acetone	ug/L	ND	40	40	50.5	48.6	126	121	58-157	4	30	
Benzene	ug/L	ND	20	20	22.1	23.3	111	117	70-142	5	30	
Bromobenzene	ug/L	ND	20	20	20.4	22.0	102	110	70-143	8	30	
Bromochloromethane	ug/L	ND	20	20	22.0	23.2	110	116	70-146	6	30	
Bromodichloromethane	ug/L	ND	20	20	21.8	22.7	109	114	70-139	4	30	
Bromoform	ug/L	ND	20	20	19.8	21.4	99	107	64-140	8	30	
Bromomethane	ug/L	ND	20	20	31.0	32.2	155	161	28-192	4	30	
Carbon tetrachloride	ug/L	ND	20	20	23.3	24.9	116	124	70-148	7	30	
Chlorobenzene	ug/L	ND	20	20	22.0	23.1	110	115	70-141	5	30	
Chloroethane	ug/L	ND	20	20	29.6	31.5	148	158	58-191	6	30	
Chloroform	ug/L	ND	20	20	22.9	23.7	114	119	70-148	4	30	
Chloromethane	ug/L	ND	20	20	24.3	24.9	121	125	43-162	3	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	23.6	24.6	118	123	68-151	4	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	22.3	23.0	112	115	70-139	3	30	
Dibromochloromethane	ug/L	ND	20	20	20.5	21.2	103	106	70-144	3	30	
Dibromomethane	ug/L	ND	20	20	20.9	22.0	104	110	70-139	5	30	
Dichlorodifluoromethane	ug/L	ND	20	20	25.1	26.0	126	130	39-171	3	30	
Diisopropyl ether	ug/L	ND	20	20	23.7	24.3	118	121	67-142	3	30	
Ethylbenzene	ug/L	ND	20	20	21.9	22.9	109	115	70-143	5	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	21.1	22.0	106	110	64-163	4	30	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3758248 3758249												
Parameter	Units	92623390001		MS	MSD	MS	MSD	MS	MSD	% Rec	Max	
		Result	Conc.	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD	RPD
m&p-Xylene	ug/L	ND	40	40	40	44.3	45.7	111	114	70-144	3	30
Methyl-tert-butyl ether	ug/L	ND	20	20	20	22.0	22.6	110	113	65-143	3	30
Methylene Chloride	ug/L	ND	20	20	20	19.6	20.8	98	104	62-149	6	30
Naphthalene	ug/L	ND	20	20	20	19.2	19.5	96	98	67-147	2	30
o-Xylene	ug/L	ND	20	20	20	21.6	22.8	108	114	70-145	5	30
p-Isopropyltoluene	ug/L	ND	20	20	20	21.8	22.7	109	113	70-147	4	30
Styrene	ug/L	ND	20	20	20	21.6	22.8	108	114	70-143	5	30
Tetrachloroethene	ug/L	ND	20	20	20	21.1	22.1	106	110	70-145	4	30
Toluene	ug/L	ND	20	20	20	21.8	22.7	109	114	70-142	4	30
trans-1,2-Dichloroethene	ug/L	ND	20	20	20	24.7	27.0	123	135	70-151	9	30
trans-1,3-Dichloropropene	ug/L	ND	20	20	20	21.8	22.5	109	112	70-139	3	30
Trichloroethene	ug/L	ND	20	20	20	23.2	24.1	116	120	62-146	4	30
Trichlorofluoromethane	ug/L	ND	20	20	20	24.3	25.0	121	125	63-153	3	30
Vinyl acetate	ug/L	ND	40	40	40	53.5	54.1	134	135	61-162	1	30
Vinyl chloride	ug/L	ND	20	20	20	26.4	27.7	132	138	61-163	5	30
Xylene (Total)	ug/L	ND	60	60	60	65.9	68.5	110	114	70-143	4	30
1,2-Dichloroethane-d4 (S)	%							108	101	70-130		
4-Bromofluorobenzene (S)	%							104	102	70-130		
Toluene-d8 (S)	%							101	100	70-130		

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

QC Batch: 721648 Analysis Method: EPA 8260D  
QC Batch Method: EPA 8260D Analysis Description: 8260D MSV Low Level  
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005

METHOD BLANK: 3759983 Matrix: Water  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.31	09/07/22 17:54	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.33	09/07/22 17:54	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.22	09/07/22 17:54	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.32	09/07/22 17:54	
1,1-Dichloroethane	ug/L	ND	1.0	0.37	09/07/22 17:54	
1,1-Dichloroethene	ug/L	ND	1.0	0.35	09/07/22 17:54	
1,1-Dichloropropene	ug/L	ND	1.0	0.43	09/07/22 17:54	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.81	09/07/22 17:54	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.26	09/07/22 17:54	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.64	09/07/22 17:54	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	0.34	09/07/22 17:54	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	09/07/22 17:54	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.34	09/07/22 17:54	
1,2-Dichloroethane	ug/L	ND	1.0	0.32	09/07/22 17:54	
1,2-Dichloropropane	ug/L	ND	1.0	0.36	09/07/22 17:54	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.34	09/07/22 17:54	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	09/07/22 17:54	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	09/07/22 17:54	
2,2-Dichloropropane	ug/L	ND	1.0	0.39	09/07/22 17:54	
2-Butanone (MEK)	ug/L	ND	5.0	4.0	09/07/22 17:54	
2-Chlorotoluene	ug/L	ND	1.0	0.32	09/07/22 17:54	
2-Hexanone	ug/L	ND	5.0	0.48	09/07/22 17:54	
4-Chlorotoluene	ug/L	ND	1.0	0.32	09/07/22 17:54	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	2.7	09/07/22 17:54	
Acetone	ug/L	ND	25.0	5.1	09/07/22 17:54	
Benzene	ug/L	ND	1.0	0.34	09/07/22 17:54	
Bromobenzene	ug/L	ND	1.0	0.29	09/07/22 17:54	
Bromochloromethane	ug/L	ND	1.0	0.47	09/07/22 17:54	
Bromodichloromethane	ug/L	ND	1.0	0.31	09/07/22 17:54	
Bromoform	ug/L	ND	1.0	0.34	09/07/22 17:54	
Bromomethane	ug/L	ND	2.0	1.7	09/07/22 17:54	
Carbon tetrachloride	ug/L	ND	1.0	0.33	09/07/22 17:54	
Chlorobenzene	ug/L	ND	1.0	0.28	09/07/22 17:54	
Chloroethane	ug/L	ND	1.0	0.65	09/07/22 17:54	
Chloroform	ug/L	ND	1.0	0.43	09/07/22 17:54	
Chloromethane	ug/L	ND	1.0	0.54	09/07/22 17:54	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.38	09/07/22 17:54	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/07/22 17:54	
Dibromochloromethane	ug/L	ND	1.0	0.36	09/07/22 17:54	
Dibromomethane	ug/L	ND	1.0	0.39	09/07/22 17:54	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

METHOD BLANK: 3759983 Matrix: Water  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	0.35	09/07/22 17:54	
Diisopropyl ether	ug/L	ND	1.0	0.31	09/07/22 17:54	
Ethylbenzene	ug/L	ND	1.0	0.30	09/07/22 17:54	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.5	09/07/22 17:54	
m&p-Xylene	ug/L	ND	2.0	0.71	09/07/22 17:54	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	09/07/22 17:54	
Methylene Chloride	ug/L	ND	5.0	2.0	09/07/22 17:54	
Naphthalene	ug/L	ND	1.0	0.64	09/07/22 17:54	
o-Xylene	ug/L	ND	1.0	0.34	09/07/22 17:54	
p-Isopropyltoluene	ug/L	ND	1.0	0.41	09/07/22 17:54	
Styrene	ug/L	ND	1.0	0.29	09/07/22 17:54	
Tetrachloroethene	ug/L	ND	1.0	0.29	09/07/22 17:54	
Toluene	ug/L	ND	1.0	0.48	09/07/22 17:54	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.40	09/07/22 17:54	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/07/22 17:54	
Trichloroethene	ug/L	ND	1.0	0.38	09/07/22 17:54	
Trichlorofluoromethane	ug/L	ND	1.0	0.30	09/07/22 17:54	
Vinyl acetate	ug/L	ND	2.0	1.3	09/07/22 17:54	
Vinyl chloride	ug/L	ND	1.0	0.39	09/07/22 17:54	
Xylene (Total)	ug/L	ND	1.0	0.34	09/07/22 17:54	
1,2-Dichloroethane-d4 (S)	%	105	70-130		09/07/22 17:54	
4-Bromofluorobenzene (S)	%	100	70-130		09/07/22 17:54	
Toluene-d8 (S)	%	98	70-130		09/07/22 17:54	

LABORATORY CONTROL SAMPLE: 3759984

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	45.7	91	70-130	
1,1,1-Trichloroethane	ug/L	50	47.3	95	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	42.7	85	70-130	
1,1,2-Trichloroethane	ug/L	50	45.4	91	70-130	
1,1-Dichloroethane	ug/L	50	44.3	89	70-130	
1,1-Dichloroethene	ug/L	50	45.0	90	70-130	
1,1-Dichloropropene	ug/L	50	46.3	93	70-130	
1,2,3-Trichlorobenzene	ug/L	50	47.0	94	70-130	
1,2,3-Trichloropropane	ug/L	50	42.8	86	70-130	
1,2,4-Trichlorobenzene	ug/L	50	46.9	94	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.7	95	70-131	
1,2-Dibromoethane (EDB)	ug/L	50	45.5	91	70-130	
1,2-Dichlorobenzene	ug/L	50	45.2	90	70-130	
1,2-Dichloroethane	ug/L	50	47.9	96	70-130	
1,2-Dichloropropane	ug/L	50	43.5	87	70-130	
1,3-Dichlorobenzene	ug/L	50	44.3	89	70-130	
1,3-Dichloropropane	ug/L	50	42.6	85	70-130	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

LABORATORY CONTROL SAMPLE: 3759984

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	44.1	88	70-130	
2,2-Dichloropropane	ug/L	50	48.0	96	68-135	
2-Butanone (MEK)	ug/L	100	82.1	82	70-134	
2-Chlorotoluene	ug/L	50	44.0	88	70-130	
2-Hexanone	ug/L	100	89.7	90	70-131	
4-Chlorotoluene	ug/L	50	43.9	88	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	90.5	91	70-130	
Acetone	ug/L	100	88.4	88	70-133	
Benzene	ug/L	50	44.2	88	70-130	
Bromobenzene	ug/L	50	45.1	90	70-130	
Bromochloromethane	ug/L	50	42.1	84	70-130	
Bromodichloromethane	ug/L	50	47.0	94	70-130	
Bromoform	ug/L	50	49.4	99	70-130	
Bromomethane	ug/L	50	54.4	109	45-151	
Carbon tetrachloride	ug/L	50	50.2	100	70-130	
Chlorobenzene	ug/L	50	45.3	91	70-130	
Chloroethane	ug/L	50	48.8	98	39-152	
Chloroform	ug/L	50	44.1	88	70-130	
Chloromethane	ug/L	50	44.7	89	58-130	
cis-1,2-Dichloroethene	ug/L	50	44.5	89	70-130	
cis-1,3-Dichloropropene	ug/L	50	45.3	91	70-130	
Dibromochloromethane	ug/L	50	49.6	99	70-130	
Dibromomethane	ug/L	50	47.1	94	70-130	
Dichlorodifluoromethane	ug/L	50	47.8	96	54-133	
Diisopropyl ether	ug/L	50	44.1	88	70-130	
Ethylbenzene	ug/L	50	44.3	89	70-130	
Hexachloro-1,3-butadiene	ug/L	50	49.7	99	70-135	
m&p-Xylene	ug/L	100	89.8	90	70-130	
Methyl-tert-butyl ether	ug/L	50	44.0	88	70-130	
Methylene Chloride	ug/L	50	41.1	82	66-130	
Naphthalene	ug/L	50	47.7	95	70-130	
o-Xylene	ug/L	50	45.1	90	70-130	
p-Isopropyltoluene	ug/L	50	47.5	95	70-130	
Styrene	ug/L	50	45.9	92	70-130	
Tetrachloroethene	ug/L	50	44.6	89	70-130	
Toluene	ug/L	50	43.9	88	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.1	94	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.2	94	70-130	
Trichloroethene	ug/L	50	48.7	97	70-130	
Trichlorofluoromethane	ug/L	50	44.3	89	62-130	
Vinyl acetate	ug/L	100	96.0	96	70-144	
Vinyl chloride	ug/L	50	44.0	88	62-130	
Xylene (Total)	ug/L	150	135	90	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

MATRIX SPIKE SAMPLE:	3760919	92623709006	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.0	105	70-141	
1,1,1-Trichloroethane	ug/L	ND	20	23.5	117	70-150	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	18.9	95	69-142	
1,1,2-Trichloroethane	ug/L	ND	20	20.4	102	70-138	
1,1-Dichloroethane	ug/L	ND	20	21.6	108	70-150	
1,1-Dichloroethene	ug/L	ND	20	23.1	116	70-156	
1,1-Dichloropropene	ug/L	ND	20	21.9	109	70-150	
1,2,3-Trichlorobenzene	ug/L	ND	20	18.5	93	70-148	
1,2,3-Trichloropropane	ug/L	ND	20	18.7	94	70-140	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.5	93	70-146	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	19.2	96	68-146	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.3	102	70-138	
1,2-Dichlorobenzene	ug/L	ND	20	20.3	102	70-141	
1,2-Dichloroethane	ug/L	ND	20	22.5	112	69-143	
1,2-Dichloropropane	ug/L	ND	20	20.3	101	68-156	
1,3-Dichlorobenzene	ug/L	ND	20	20.2	101	70-143	
1,3-Dichloropropane	ug/L	ND	20	19.6	98	70-138	
1,4-Dichlorobenzene	ug/L	ND	20	20.2	101	70-142	
2,2-Dichloropropane	ug/L	ND	20	22.4	112	52-170	
2-Butanone (MEK)	ug/L	ND	40	37.0	93	60-157	
2-Chlorotoluene	ug/L	ND	20	20.0	100	70-147	
2-Hexanone	ug/L	ND	40	35.7	89	68-146	
4-Chlorotoluene	ug/L	ND	20	19.8	99	70-142	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	36.6	92	70-141	
Acetone	ug/L	ND	40	36.4	91	58-157	
Benzene	ug/L	ND	20	20.9	105	70-142	
Bromobenzene	ug/L	ND	20	20.6	103	70-143	
Bromochloromethane	ug/L	ND	20	22.3	112	70-146	
Bromodichloromethane	ug/L	ND	20	22.0	110	70-139	
Bromoform	ug/L	ND	20	20.5	103	64-140	
Bromomethane	ug/L	ND	20	26.1	131	28-192	
Carbon tetrachloride	ug/L	ND	20	24.8	124	70-148	
Chlorobenzene	ug/L	ND	20	20.8	104	70-141	
Chloroethane	ug/L	ND	20	25.0	125	58-191	
Chloroform	ug/L	ND	20	21.6	108	70-148	
Chloromethane	ug/L	ND	20	23.3	117	43-162	
cis-1,2-Dichloroethene	ug/L	ND	20	21.5	107	68-151	
cis-1,3-Dichloropropene	ug/L	ND	20	20.4	102	70-139	
Dibromochloromethane	ug/L	ND	20	21.6	108	70-144	
Dibromomethane	ug/L	ND	20	21.8	109	70-139	
Dichlorodifluoromethane	ug/L	ND	20	25.8	129	39-171	
Diisopropyl ether	ug/L	ND	20	20.1	100	67-142	
Ethylbenzene	ug/L	ND	20	20.7	103	70-143	
Hexachloro-1,3-butadiene	ug/L	ND	20	20.5	102	64-163	
m&p-Xylene	ug/L	ND	40	42.1	105	70-144	
Methyl-tert-butyl ether	ug/L	ND	20	20.4	102	65-143	
Methylene Chloride	ug/L	ND	20	17.6	88	62-149	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

MATRIX SPIKE SAMPLE: 3760919		92623709006	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Naphthalene	ug/L	ND	20	18.0	90	67-147	
o-Xylene	ug/L	ND	20	20.3	102	70-145	
p-Isopropyltoluene	ug/L	ND	20	20.5	102	70-147	
Styrene	ug/L	ND	20	20.4	102	70-143	
Tetrachloroethene	ug/L	ND	20	20.5	102	70-145	
Toluene	ug/L	ND	20	20.9	104	70-142	
trans-1,2-Dichloroethene	ug/L	ND	20	22.7	113	70-151	
trans-1,3-Dichloropropene	ug/L	ND	20	21.0	105	70-139	
Trichloroethene	ug/L	ND	20	21.7	109	62-146	
Trichlorofluoromethane	ug/L	ND	20	23.9	120	63-153	
Vinyl acetate	ug/L	ND	40	37.4	93	61-162	
Vinyl chloride	ug/L	ND	20	22.9	114	61-163	
Xylene (Total)	ug/L	ND	60	62.4	104	70-143	
1,2-Dichloroethane-d4 (S)	%				102	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 3760918

Parameter	Units	92623709005	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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### QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92623225

SAMPLE DUPLICATE: 3760918

Parameter	Units	92623709005 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	105	106			
4-Bromofluorobenzene (S)	%	101	99			
Toluene-d8 (S)	%	101	99			

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

QC Batch: 721650	Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D	Analysis Description: 8260D MSV Low Level
	Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92623225006

METHOD BLANK: 3759987 Matrix: Water

Associated Lab Samples: 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.31	09/07/22 17:36	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.33	09/07/22 17:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.22	09/07/22 17:36	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.32	09/07/22 17:36	
1,1-Dichloroethane	ug/L	ND	1.0	0.37	09/07/22 17:36	
1,1-Dichloroethene	ug/L	ND	1.0	0.35	09/07/22 17:36	
1,1-Dichloropropene	ug/L	ND	1.0	0.43	09/07/22 17:36	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.81	09/07/22 17:36	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.26	09/07/22 17:36	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.64	09/07/22 17:36	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	0.34	09/07/22 17:36	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	09/07/22 17:36	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.34	09/07/22 17:36	
1,2-Dichloroethane	ug/L	ND	1.0	0.32	09/07/22 17:36	
1,2-Dichloropropane	ug/L	ND	1.0	0.36	09/07/22 17:36	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.34	09/07/22 17:36	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	09/07/22 17:36	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	09/07/22 17:36	
2,2-Dichloropropane	ug/L	ND	1.0	0.39	09/07/22 17:36	
2-Butanone (MEK)	ug/L	ND	5.0	4.0	09/07/22 17:36	
2-Chlorotoluene	ug/L	ND	1.0	0.32	09/07/22 17:36	
2-Hexanone	ug/L	ND	5.0	0.48	09/07/22 17:36	
4-Chlorotoluene	ug/L	ND	1.0	0.32	09/07/22 17:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	2.7	09/07/22 17:36	
Acetone	ug/L	ND	25.0	5.1	09/07/22 17:36	
Benzene	ug/L	ND	1.0	0.34	09/07/22 17:36	
Bromobenzene	ug/L	ND	1.0	0.29	09/07/22 17:36	
Bromochloromethane	ug/L	ND	1.0	0.47	09/07/22 17:36	
Bromodichloromethane	ug/L	ND	1.0	0.31	09/07/22 17:36	
Bromoform	ug/L	ND	1.0	0.34	09/07/22 17:36	
Bromomethane	ug/L	ND	2.0	1.7	09/07/22 17:36	
Carbon tetrachloride	ug/L	ND	1.0	0.33	09/07/22 17:36	
Chlorobenzene	ug/L	ND	1.0	0.28	09/07/22 17:36	
Chloroethane	ug/L	ND	1.0	0.65	09/07/22 17:36	
Chloroform	ug/L	ND	1.0	0.43	09/07/22 17:36	
Chloromethane	ug/L	ND	1.0	0.54	09/07/22 17:36	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.38	09/07/22 17:36	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/07/22 17:36	
Dibromochloromethane	ug/L	ND	1.0	0.36	09/07/22 17:36	
Dibromomethane	ug/L	ND	1.0	0.39	09/07/22 17:36	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

METHOD BLANK: 3759987

Matrix: Water

Associated Lab Samples: 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	0.35	09/07/22 17:36	
Diisopropyl ether	ug/L	ND	1.0	0.31	09/07/22 17:36	
Ethylbenzene	ug/L	ND	1.0	0.30	09/07/22 17:36	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.5	09/07/22 17:36	
m&p-Xylene	ug/L	ND	2.0	0.71	09/07/22 17:36	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	09/07/22 17:36	
Methylene Chloride	ug/L	ND	5.0	2.0	09/07/22 17:36	
Naphthalene	ug/L	ND	1.0	0.64	09/07/22 17:36	
o-Xylene	ug/L	ND	1.0	0.34	09/07/22 17:36	
p-Isopropyltoluene	ug/L	ND	1.0	0.41	09/07/22 17:36	
Styrene	ug/L	ND	1.0	0.29	09/07/22 17:36	
Tetrachloroethene	ug/L	ND	1.0	0.29	09/07/22 17:36	
Toluene	ug/L	ND	1.0	0.48	09/07/22 17:36	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.40	09/07/22 17:36	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/07/22 17:36	
Trichloroethene	ug/L	ND	1.0	0.38	09/07/22 17:36	
Trichlorofluoromethane	ug/L	ND	1.0	0.30	09/07/22 17:36	
Vinyl acetate	ug/L	ND	2.0	1.3	09/07/22 17:36	
Vinyl chloride	ug/L	ND	1.0	0.39	09/07/22 17:36	
Xylene (Total)	ug/L	ND	1.0	0.34	09/07/22 17:36	
1,2-Dichloroethane-d4 (S)	%	107	70-130		09/07/22 17:36	
4-Bromofluorobenzene (S)	%	100	70-130		09/07/22 17:36	
Toluene-d8 (S)	%	100	70-130		09/07/22 17:36	

LABORATORY CONTROL SAMPLE: 3759988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.2	92	70-130	
1,1,1-Trichloroethane	ug/L	50	48.3	97	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.6	91	70-130	
1,1,2-Trichloroethane	ug/L	50	46.5	93	70-130	
1,1-Dichloroethane	ug/L	50	49.3	99	70-130	
1,1-Dichloroethene	ug/L	50	50.2	100	70-130	
1,1-Dichloropropene	ug/L	50	52.0	104	70-130	
1,2,3-Trichlorobenzene	ug/L	50	42.4	85	70-130	
1,2,3-Trichloropropane	ug/L	50	45.5	91	70-130	
1,2,4-Trichlorobenzene	ug/L	50	44.5	89	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	43.9	88	70-131	
1,2-Dibromoethane (EDB)	ug/L	50	46.6	93	70-130	
1,2-Dichlorobenzene	ug/L	50	45.3	91	70-130	
1,2-Dichloroethane	ug/L	50	47.8	96	70-130	
1,2-Dichloropropane	ug/L	50	49.2	98	70-130	
1,3-Dichlorobenzene	ug/L	50	46.4	93	70-130	
1,3-Dichloropropane	ug/L	50	45.8	92	70-130	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

LABORATORY CONTROL SAMPLE: 3759988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	45.5	91	70-130	
2,2-Dichloropropane	ug/L	50	49.1	98	68-135	
2-Butanone (MEK)	ug/L	100	94.0	94	70-134	
2-Chlorotoluene	ug/L	50	46.0	92	70-130	
2-Hexanone	ug/L	100	90.2	90	70-131	
4-Chlorotoluene	ug/L	50	46.0	92	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.6	95	70-130	
Acetone	ug/L	100	99.5	99	70-133	
Benzene	ug/L	50	46.2	92	70-130	
Bromobenzene	ug/L	50	44.8	90	70-130	
Bromochloromethane	ug/L	50	48.1	96	70-130	
Bromodichloromethane	ug/L	50	47.6	95	70-130	
Bromoform	ug/L	50	45.4	91	70-130	
Bromomethane	ug/L	50	58.2	116	45-151	
Carbon tetrachloride	ug/L	50	46.7	93	70-130	
Chlorobenzene	ug/L	50	45.9	92	70-130	
Chloroethane	ug/L	50	54.7	109	39-152	
Chloroform	ug/L	50	47.6	95	70-130	
Chloromethane	ug/L	50	49.6	99	58-130	
cis-1,2-Dichloroethene	ug/L	50	50.1	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.0	98	70-130	
Dibromochloromethane	ug/L	50	46.1	92	70-130	
Dibromomethane	ug/L	50	45.1	90	70-130	
Dichlorodifluoromethane	ug/L	50	47.8	96	54-133	
Diisopropyl ether	ug/L	50	51.7	103	70-130	
Ethylbenzene	ug/L	50	45.0	90	70-130	
Hexachloro-1,3-butadiene	ug/L	50	45.7	91	70-135	
m&p-Xylene	ug/L	100	91.1	91	70-130	
Methyl-tert-butyl ether	ug/L	50	47.6	95	70-130	
Methylene Chloride	ug/L	50	47.3	95	66-130	
Naphthalene	ug/L	50	43.6	87	70-130	
o-Xylene	ug/L	50	45.7	91	70-130	
p-Isopropyltoluene	ug/L	50	47.5	95	70-130	
Styrene	ug/L	50	46.5	93	70-130	
Tetrachloroethene	ug/L	50	44.6	89	70-130	
Toluene	ug/L	50	46.1	92	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.8	102	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.7	95	70-130	
Trichloroethene	ug/L	50	48.6	97	70-130	
Trichlorofluoromethane	ug/L	50	44.4	89	62-130	
Vinyl acetate	ug/L	100	117	117	70-144	
Vinyl chloride	ug/L	50	52.1	104	62-130	
Xylene (Total)	ug/L	150	137	91	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			100	70-130	

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**QUALITY CONTROL DATA**

Project: TCH-009

Pace Project No.: 92623225

Parameter	Units	92623637001		MS		MSD		3760895		3760896		Qual
		Result	Conc.	Spike	Conc.	Result	Result	% Rec	% Rec	% Rec	% Rec	
1,1,1,2-Tetrachloroethane	ug/L	ND	100	100	100	105	105	105	105	70-141	1	30
1,1,1-Trichloroethane	ug/L	ND	100	100	100	125	127	125	127	70-150	1	30
1,1,2,2-Tetrachloroethane	ug/L	ND	100	100	100	101	106	101	106	69-142	4	30
1,1,2-Trichloroethane	ug/L	ND	100	100	100	105	109	105	109	70-138	4	30
1,1-Dichloroethane	ug/L	ND	100	100	100	124	127	124	127	70-150	3	30
1,1-Dichloroethene	ug/L	ND	100	100	100	137	138	137	138	70-156	1	30
1,1-Dichloropropene	ug/L	ND	100	100	100	129	138	129	138	70-150	6	30
1,2,3-Trichlorobenzene	ug/L	ND	100	100	100	79.9	81.9	80	82	70-148	2	30
1,2,3-Trichloropropane	ug/L	ND	100	100	100	98.9	107	99	107	70-140	7	30
1,2,4-Trichlorobenzene	ug/L	ND	100	100	100	88.8	93.5	89	94	70-146	5	30
1,2-Dibromo-3-chloropropane	ug/L	ND	100	100	100	89.8	94.9	90	95	68-146	5	30
1,2-Dibromoethane (EDB)	ug/L	ND	100	100	100	100	107	100	107	70-138	6	30
1,2-Dichlorobenzene	ug/L	ND	100	100	100	102	105	102	105	70-141	3	30
1,2-Dichloroethane	ug/L	ND	100	100	100	116	122	116	122	69-143	5	30
1,2-Dichloropropane	ug/L	ND	100	100	100	116	117	116	117	68-156	1	30
1,3-Dichlorobenzene	ug/L	ND	100	100	100	105	108	105	108	70-143	3	30
1,3-Dichloropropane	ug/L	ND	100	100	100	103	107	103	107	70-138	3	30
1,4-Dichlorobenzene	ug/L	ND	100	100	100	104	106	104	106	70-142	2	30
2,2-Dichloropropane	ug/L	ND	100	100	100	114	116	114	116	52-170	2	30
2-Butanone (MEK)	ug/L	ND	200	200	200	228	250	114	125	60-157	9	30
2-Chlorotoluene	ug/L	ND	100	100	100	103	109	103	109	70-147	5	30
2-Hexanone	ug/L	ND	200	200	200	247	258	123	129	68-146	5	30
4-Chlorotoluene	ug/L	ND	100	100	100	104	110	104	110	70-142	6	30
4-Methyl-2-pentanone (MIBK)	ug/L	ND	200	200	200	219	228	106	110	70-141	4	30
Acetone	ug/L	1910	200	200	200	2070	2160	76	123	58-157	4	30 E
Benzene	ug/L	ND	100	100	100	114	114	114	114	70-142	0	30
Bromobenzene	ug/L	ND	100	100	100	103	103	103	103	70-143	0	30
Bromochloromethane	ug/L	ND	100	100	100	109	112	109	112	70-146	3	30
Bromodichloromethane	ug/L	ND	100	100	100	110	113	110	113	70-139	2	30
Bromoform	ug/L	ND	100	100	100	97.1	94.7	97	95	64-140	3	30
Bromomethane	ug/L	ND	100	100	100	168	172	168	172	28-192	2	30
Carbon tetrachloride	ug/L	ND	100	100	100	123	120	123	120	70-148	3	30
Chlorobenzene	ug/L	ND	100	100	100	111	110	111	110	70-141	0	30
Chloroethane	ug/L	ND	100	100	100	166	171	166	171	58-191	3	30
Chloroform	ug/L	ND	100	100	100	126	128	122	124	70-148	2	30
Chloromethane	ug/L	ND	100	100	100	125	128	125	128	43-162	3	30
cis-1,2-Dichloroethene	ug/L	ND	100	100	100	126	128	126	128	68-151	2	30
cis-1,3-Dichloropropene	ug/L	ND	100	100	100	107	110	107	110	70-139	2	30
Dibromochloromethane	ug/L	ND	100	100	100	96.4	101	96	101	70-144	5	30
Dibromomethane	ug/L	ND	100	100	100	102	106	102	106	70-139	3	30
Dichlorodifluoromethane	ug/L	ND	100	100	100	139	142	139	142	39-171	3	30
Diisopropyl ether	ug/L	ND	100	100	100	111	123	111	123	67-142	10	30
Ethylbenzene	ug/L	ND	100	100	100	111	111	111	111	70-143	0	30
Hexachloro-1,3-butadiene	ug/L	ND	100	100	100	118	123	118	123	64-163	4	30

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

Parameter	Units	3760895		3760896		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92623637001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
m&p-Xylene	ug/L	ND	200	200	218	221	109	111	70-144	1	30		
Methyl-tert-butyl ether	ug/L	ND	100	100	106	111	106	111	65-143	5	30		
Methylene Chloride	ug/L	ND	100	100	111	110	111	110	62-149	1	30		
Naphthalene	ug/L	ND	100	100	83.5	89.2	83	89	67-147	7	30		
o-Xylene	ug/L	ND	100	100	108	108	108	108	70-145	0	30		
p-Isopropyltoluene	ug/L	ND	100	100	109	112	109	112	70-147	3	30		
Styrene	ug/L	ND	100	100	106	107	106	107	70-143	1	30		
Tetrachloroethene	ug/L	ND	100	100	103	105	103	105	70-145	2	30		
Toluene	ug/L	ND	100	100	110	114	110	114	70-142	3	30		
trans-1,2-Dichloroethene	ug/L	ND	100	100	128	134	128	134	70-151	5	30		
trans-1,3-Dichloropropene	ug/L	ND	100	100	105	109	105	109	70-139	4	30		
Trichloroethene	ug/L	ND	100	100	116	117	116	117	62-146	1	30		
Trichlorofluoromethane	ug/L	ND	100	100	130	131	130	131	63-153	1	30		
Vinyl acetate	ug/L	ND	200	200	251	271	126	135	61-162	7	30		
Vinyl chloride	ug/L	ND	100	100	142	146	142	146	61-163	2	30		
Xylene (Total)	ug/L	ND	300	300	326	329	109	110	70-143	1	30		
1,2-Dichloroethane-d4 (S)	%						106	109	70-130				
4-Bromofluorobenzene (S)	%						100	103	70-130				
Toluene-d8 (S)	%						101	102	70-130				

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

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QC Batch:	721034	Analysis Method:	EPA 8260D Mod.
QC Batch Method:	EPA 8260D Mod.	Analysis Description:	8260D MSV SIM
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006, 92623225007

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METHOD BLANK: 3757175 Matrix: Water  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006, 92623225007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	0.86	09/01/22 13:54	
1,2-Dichloroethane-d4 (S)	%	99	70-130		09/01/22 13:54	
Toluene-d8 (S)	%	93	70-130		09/01/22 13:54	

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LABORATORY CONTROL SAMPLE: 3757176

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	19.2	96	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
Toluene-d8 (S)	%			93	70-130	

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3757177 3757178

Parameter	Units	92623225001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	19.2	19.2	96	96	63-136	0	30	
1,2-Dichloroethane-d4 (S)	%						100	98	70-130		30	
Toluene-d8 (S)	%						92	91	70-130		30	

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### QUALITY CONTROL DATA

Project: TCH-009  
 Pace Project No.: 92623225

QC Batch: 721207	Analysis Method: EPA 8270E
QC Batch Method: EPA 3510C	Analysis Description: 8270E Water MSSV RVE
	Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92623225003

METHOD BLANK: 3757839 Matrix: Water

Associated Lab Samples: 92623225003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	1.7	09/02/22 18:31	
1,2-Dichlorobenzene	ug/L	ND	10.0	1.8	09/02/22 18:31	
1,3-Dichlorobenzene	ug/L	ND	10.0	1.6	09/02/22 18:31	
1,4-Dichlorobenzene	ug/L	ND	10.0	1.7	09/02/22 18:31	
1-Methylnaphthalene	ug/L	ND	10.0	2.0	09/02/22 18:31	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	1.2	09/02/22 18:31	
2,4,5-Trichlorophenol	ug/L	ND	10.0	1.4	09/02/22 18:31	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.6	09/02/22 18:31	
2,4-Dichlorophenol	ug/L	ND	10.0	1.4	09/02/22 18:31	
2,4-Dimethylphenol	ug/L	ND	10.0	1.7	09/02/22 18:31	
2,4-Dinitrophenol	ug/L	ND	50.0	26.0	09/02/22 18:31	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.6	09/02/22 18:31	
2,6-Dinitrotoluene	ug/L	ND	10.0	1.7	09/02/22 18:31	
2-Chloronaphthalene	ug/L	ND	10.0	1.7	09/02/22 18:31	
2-Chlorophenol	ug/L	ND	10.0	1.2	09/02/22 18:31	
2-Methylnaphthalene	ug/L	ND	10.0	1.9	09/02/22 18:31	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.9	09/02/22 18:31	
2-Nitroaniline	ug/L	ND	20.0	3.0	09/02/22 18:31	
2-Nitrophenol	ug/L	ND	10.0	1.4	09/02/22 18:31	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.2	09/02/22 18:31	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	8.1	09/02/22 18:31	
3-Nitroaniline	ug/L	ND	20.0	3.8	09/02/22 18:31	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	7.8	09/02/22 18:31	
4-Bromophenylphenyl ether	ug/L	ND	10.0	1.8	09/02/22 18:31	
4-Chloro-3-methylphenol	ug/L	ND	10.0	3.3	09/02/22 18:31	
4-Chloroaniline	ug/L	ND	20.0	3.6	09/02/22 18:31	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	2.0	09/02/22 18:31	
4-Nitroaniline	ug/L	ND	20.0	5.1	09/02/22 18:31	
4-Nitrophenol	ug/L	ND	50.0	6.6	09/02/22 18:31	
Acenaphthene	ug/L	ND	10.0	2.0	09/02/22 18:31	
Acenaphthylene	ug/L	ND	10.0	2.0	09/02/22 18:31	
Aniline	ug/L	ND	10.0	1.6	09/02/22 18:31	
Anthracene	ug/L	ND	10.0	2.3	09/02/22 18:31	
Benzo(a)anthracene	ug/L	ND	10.0	2.7	09/02/22 18:31	
Benzo(a)pyrene	ug/L	ND	10.0	2.8	09/02/22 18:31	
Benzo(b)fluoranthene	ug/L	ND	10.0	2.6	09/02/22 18:31	
Benzo(g,h,i)perylene	ug/L	ND	10.0	2.8	09/02/22 18:31	
Benzo(k)fluoranthene	ug/L	ND	10.0	2.7	09/02/22 18:31	
Benzoic Acid	ug/L	ND	50.0	22.0	09/02/22 18:31	
Benzyl alcohol	ug/L	ND	20.0	2.9	09/02/22 18:31	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

METHOD BLANK: 3757839

Matrix: Water

Associated Lab Samples: 92623225003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.8	09/02/22 18:31	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	1.9	09/02/22 18:31	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	3.7	09/02/22 18:31	
Butylbenzylphthalate	ug/L	ND	10.0	3.1	09/02/22 18:31	
Chrysene	ug/L	ND	10.0	2.8	09/02/22 18:31	
Di-n-butylphthalate	ug/L	ND	10.0	2.2	09/02/22 18:31	
Di-n-octylphthalate	ug/L	ND	10.0	3.9	09/02/22 18:31	
Dibenz(a,h)anthracene	ug/L	ND	10.0	3.0	09/02/22 18:31	
Dibenzofuran	ug/L	ND	10.0	2.1	09/02/22 18:31	
Diethylphthalate	ug/L	ND	10.0	2.0	09/02/22 18:31	
Dimethylphthalate	ug/L	ND	10.0	2.1	09/02/22 18:31	
Fluoranthene	ug/L	ND	10.0	2.2	09/02/22 18:31	
Fluorene	ug/L	ND	10.0	2.1	09/02/22 18:31	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	1.8	09/02/22 18:31	
Hexachlorobenzene	ug/L	ND	10.0	2.2	09/02/22 18:31	
Hexachlorocyclopentadiene	ug/L	ND	10.0	1.6	09/02/22 18:31	
Hexachloroethane	ug/L	ND	10.0	1.4	09/02/22 18:31	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	2.9	09/02/22 18:31	
Isophorone	ug/L	ND	10.0	1.7	09/02/22 18:31	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	1.3	09/02/22 18:31	
N-Nitrosodimethylamine	ug/L	ND	10.0	1.9	09/02/22 18:31	
N-Nitrosodiphenylamine	ug/L	ND	10.0	3.0	09/02/22 18:31	
Naphthalene	ug/L	ND	10.0	2.1	09/02/22 18:31	
Nitrobenzene	ug/L	ND	10.0	1.9	09/02/22 18:31	
Pentachlorophenol	ug/L	ND	20.0	3.8	09/02/22 18:31	
Phenanthrene	ug/L	ND	10.0	2.0	09/02/22 18:31	
Phenol	ug/L	ND	10.0	1.4	09/02/22 18:31	
Pyrene	ug/L	ND	10.0	2.2	09/02/22 18:31	
2,4,6-Tribromophenol (S)	%	49	10-144		09/02/22 18:31	
2-Fluorobiphenyl (S)	%	89	10-130		09/02/22 18:31	
2-Fluorophenol (S)	%	42	10-130		09/02/22 18:31	
Nitrobenzene-d5 (S)	%	90	10-144		09/02/22 18:31	
Phenol-d6 (S)	%	51	10-130		09/02/22 18:31	
Terphenyl-d14 (S)	%	128	34-163		09/02/22 18:31	

LABORATORY CONTROL SAMPLE: 3757840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	35.1	70	18-130	
1,2-Dichlorobenzene	ug/L	50	29.2	58	20-130	
1,3-Dichlorobenzene	ug/L	50	24.6	49	18-130	
1,4-Dichlorobenzene	ug/L	50	25.6	51	18-130	
1-Methylnaphthalene	ug/L	50	48.5	97	29-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	40.5	81	28-130	

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### QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92623225

LABORATORY CONTROL SAMPLE: 3757840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	50	50.1	100	35-130	
2,4,6-Trichlorophenol	ug/L	50	44.7	89	31-130	
2,4-Dichlorophenol	ug/L	50	48.9	98	35-130	
2,4-Dimethylphenol	ug/L	50	56.7	113	34-130	
2,4-Dinitrophenol	ug/L	250	103	41	10-153	
2,4-Dinitrotoluene	ug/L	50	57.3	115	37-136	
2,6-Dinitrotoluene	ug/L	50	58.8	118	33-136	
2-Chloronaphthalene	ug/L	50	52.5	105	26-130	
2-Chlorophenol	ug/L	50	49.0	98	37-130	
2-Methylnaphthalene	ug/L	50	47.3	95	29-130	
2-Methylphenol(o-Cresol)	ug/L	50	49.3	99	35-130	
2-Nitroaniline	ug/L	100	95.1	95	37-130	
2-Nitrophenol	ug/L	50	47.3	95	32-130	
3&4-Methylphenol(m&p Cresol)	ug/L	50	52.0	104	34-130	
3,3'-Dichlorobenzidine	ug/L	100	115	115	34-136	
3-Nitroaniline	ug/L	100	119	119	37-138	
4,6-Dinitro-2-methylphenol	ug/L	100	73.1	73	21-157	
4-Bromophenylphenyl ether	ug/L	50	52.1	104	38-130	
4-Chloro-3-methylphenol	ug/L	100	99.3	99	37-130	
4-Chloroaniline	ug/L	100	108	108	38-130	
4-Chlorophenylphenyl ether	ug/L	50	49.7	99	33-130	
4-Nitroaniline	ug/L	100	115	115	42-137	
4-Nitrophenol	ug/L	250	102	41	10-130	
Acenaphthene	ug/L	50	53.3	107	33-130	
Acenaphthylene	ug/L	50	53.1	106	35-130	
Aniline	ug/L	50	47.5	95	22-130	
Anthracene	ug/L	50	49.8	100	48-130	
Benzo(a)anthracene	ug/L	50	55.2	110	48-137	
Benzo(a)pyrene	ug/L	50	56.7	113	49-138	
Benzo(b)fluoranthene	ug/L	50	61.6	123	52-138	
Benzo(g,h,i)perylene	ug/L	50	57.0	114	48-140	
Benzo(k)fluoranthene	ug/L	50	58.0	116	48-139	
Benzoic Acid	ug/L	250	66.2	26	10-130	
Benzyl alcohol	ug/L	100	103	103	35-130	
bis(2-Chloroethoxy)methane	ug/L	50	50.6	101	34-130	
bis(2-Chloroethyl) ether	ug/L	50	53.9	108	36-130	
bis(2-Ethylhexyl)phthalate	ug/L	50	61.1	122	32-165	
Butylbenzylphthalate	ug/L	50	63.8	128	34-161	
Chrysene	ug/L	50	54.6	109	47-131	
Di-n-butylphthalate	ug/L	50	54.1	108	39-144	
Di-n-octylphthalate	ug/L	50	63.1	126	30-170	
Dibenz(a,h)anthracene	ug/L	50	58.0	116	49-138	
Dibenzofuran	ug/L	50	53.0	106	33-130	
Diethylphthalate	ug/L	50	53.4	107	38-131	
Dimethylphthalate	ug/L	50	53.5	107	37-130	
Fluoranthene	ug/L	50	53.7	107	46-137	
Fluorene	ug/L	50	54.2	108	37-130	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

LABORATORY CONTROL SAMPLE: 3757840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	50	26.3	53	11-130	
Hexachlorobenzene	ug/L	50	51.9	104	38-130	
Hexachlorocyclopentadiene	ug/L	50	38.2	76	10-130	
Hexachloroethane	ug/L	50	22.0	44	14-130	
Indeno(1,2,3-cd)pyrene	ug/L	50	58.4	117	41-130	
Isophorone	ug/L	50	51.4	103	33-130	
N-Nitroso-di-n-propylamine	ug/L	50	55.4	111	36-130	
N-Nitrosodimethylamine	ug/L	50	45.1	90	34-130	
N-Nitrosodiphenylamine	ug/L	50	55.5	111	37-130	
Naphthalene	ug/L	50	40.8	82	30-130	
Nitrobenzene	ug/L	50	48.6	97	36-130	
Pentachlorophenol	ug/L	100	80.6	81	23-149	
Phenanthrene	ug/L	50	54.2	108	44-130	
Phenol	ug/L	50	35.5	71	18-130	
Pyrene	ug/L	50	58.3	117	47-134	
2,4,6-Tribromophenol (S)	%			112	10-144	
2-Fluorobiphenyl (S)	%			96	10-130	
2-Fluorophenol (S)	%			76	10-130	
Nitrobenzene-d5 (S)	%			98	10-144	
Phenol-d6 (S)	%			71	10-130	
Terphenyl-d14 (S)	%			133	34-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3757841 3757842

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92613441019 Result	Spike Conc.	Spike Conc.	Conc.							
1,2,4-Trichlorobenzene	ug/L	ND	83.3	83.3	83.3	52.4	58.9	63	71	10-130	12	30
1,2-Dichlorobenzene	ug/L	ND	83.3	83.3	83.3	43.5	45.1	52	54	10-130	4	30
1,3-Dichlorobenzene	ug/L	ND	83.3	83.3	83.3	37.1	37.5	45	45	10-130	1	30
1,4-Dichlorobenzene	ug/L	ND	83.3	83.3	83.3	40.4	39.1	49	47	10-130	3	30
1-Methylnaphthalene	ug/L	ND	83.3	83.3	83.3	73.0	81.3	88	98	10-130	11	30
2,2'-Oxybis(1-chloropropane)	ug/L	ND	83.3	83.3	83.3	61.3	62.4	74	75	12-142	2	30
2,4,5-Trichlorophenol	ug/L	ND	83.3	83.3	83.3	65.6	73.2	79	88	10-143	11	30
2,4,6-Trichlorophenol	ug/L	ND	83.3	83.3	83.3	53.3	59.2	64	71	10-147	10	30
2,4-Dichlorophenol	ug/L	ND	83.3	83.3	83.3	69.4	76.4	83	92	10-138	10	30
2,4-Dimethylphenol	ug/L	ND	83.3	83.3	83.3	83.1	91.8	100	110	25-130	10	30
2,4-Dinitrophenol	ug/L	ND	417	417	417	109	64.3J	26	15	10-165		30
2,4-Dinitrotoluene	ug/L	ND	83.3	83.3	83.3	85.9	93.6	103	112	29-148	9	30
2,6-Dinitrotoluene	ug/L	ND	83.3	83.3	83.3	88.8	96.5	107	116	26-146	8	30
2-Chloronaphthalene	ug/L	ND	83.3	83.3	83.3	78.1	85.3	94	102	11-130	9	30
2-Chlorophenol	ug/L	ND	83.3	83.3	83.3	70.9	74.7	85	90	10-133	5	30
2-Methylnaphthalene	ug/L	ND	83.3	83.3	83.3	70.8	78.9	85	95	13-130	11	30
2-Methylphenol(o-Cresol)	ug/L	ND	83.3	83.3	83.3	67.7	74.3	81	89	20-130	9	30
2-Nitroaniline	ug/L	ND	167	167	167	144	155	87	93	24-136	7	30

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

Parameter	Units	92613441019		3757841		3757842		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
2-Nitrophenol	ug/L	ND	83.3	83.3	73.6	78.4	88	94	10-153	6	30			
3&4-Methylphenol(m&p Cresol)	ug/L	ND	83.3	83.3	72.1	77.6	86	93	16-130	7	30			
3,3'-Dichlorobenzidine	ug/L	ND	167	167	179	193	107	116	10-153	8	30			
3-Nitroaniline	ug/L	ND	167	167	180	198	108	119	22-151	10	30			
4,6-Dinitro-2-methylphenol	ug/L	ND	167	167	79.8	72.8	48	44	10-180	9	30			
4-Bromophenylphenyl ether	ug/L	ND	83.3	83.3	78.0	85.2	94	102	25-130	9	30			
4-Chloro-3-methylphenol	ug/L	ND	167	167	145	162	87	97	25-133	11	30			
4-Chloroaniline	ug/L	ND	167	167	156	175	94	105	14-132	11	30			
4-Chlorophenylphenyl ether	ug/L	ND	83.3	83.3	73.6	81.4	88	98	19-130	10	30			
4-Nitroaniline	ug/L	ND	167	167	177	184	106	111	29-150	4	30			
4-Nitrophenol	ug/L	ND	417	417	92.2	91.8	22	22	10-130	0	30			
Acenaphthene	ug/L	ND	83.3	83.3	78.9	86.5	95	104	16-130	9	30			
Acenaphthylene	ug/L	ND	83.3	83.3	79.5	86.1	95	103	15-137	8	30			
Aniline	ug/L	ND	83.3	83.3	66.9	71.5	80	86	10-130	7	30			
Anthracene	ug/L	ND	83.3	83.3	75.2	80.8	90	97	37-136	7	30			
Benzo(a)anthracene	ug/L	ND	83.3	83.3	84.2	91.6	101	110	40-145	8	30			
Benzo(a)pyrene	ug/L	ND	83.3	83.3	86.6	90.8	104	109	41-146	5	30			
Benzo(b)fluoranthene	ug/L	ND	83.3	83.3	91.6	96.4	110	116	39-151	5	30			
Benzo(g,h,i)perylene	ug/L	ND	83.3	83.3	93.1	92.7	112	111	40-147	0	30			
Benzo(k)fluoranthene	ug/L	ND	83.3	83.3	87.4	95.3	105	114	40-146	9	30			
Benzoic Acid	ug/L	ND	417	417	82.7J	73.6J	20	18	10-130		30			
Benzyl alcohol	ug/L	ND	167	167	142	158	85	95	25-130	11	30			
bis(2-Chloroethoxy)methane	ug/L	ND	83.3	83.3	74.7	80.5	90	97	23-130	8	30			
bis(2-Chloroethyl) ether	ug/L	ND	83.3	83.3	79.5	84.3	95	101	25-130	6	30			
bis(2-Ethylhexyl)phthalate	ug/L	ND	83.3	83.3	92.0	103	110	124	28-166	12	30			
Butylbenzylphthalate	ug/L	ND	83.3	83.3	94.6	105	113	126	33-165	10	30			
Chrysene	ug/L	ND	83.3	83.3	83.4	91.2	100	109	38-141	9	30			
Di-n-butylphthalate	ug/L	ND	83.3	83.3	81.0	88.8	97	107	32-153	9	30			
Di-n-octylphthalate	ug/L	ND	83.3	83.3	98.2	108	118	129	30-175	9	30			
Dibenz(a,h)anthracene	ug/L	ND	83.3	83.3	92.6	94.4	111	113	39-148	2	30			
Dibenzofuran	ug/L	ND	83.3	83.3	79.1	86.6	95	104	20-130	9	30			
Diethylphthalate	ug/L	ND	83.3	83.3	80.6	89.2	97	107	28-142	10	30			
Dimethylphthalate	ug/L	ND	83.3	83.3	80.4	87.3	96	105	26-136	8	30			
Fluoranthene	ug/L	ND	83.3	83.3	82.5	89.0	99	107	39-143	8	30			
Fluorene	ug/L	ND	83.3	83.3	81.1	87.9	97	106	24-132	8	30			
Hexachloro-1,3-butadiene	ug/L	ND	83.3	83.3	37.6	42.8	45	51	10-130	13	30			
Hexachlorobenzene	ug/L	ND	83.3	83.3	79.6	84.0	95	101	29-130	5	30			
Hexachlorocyclopentadiene	ug/L	ND	83.3	83.3	54.7	61.0	66	73	10-130	11	30			
Hexachloroethane	ug/L	ND	83.3	83.3	32.7	31.4	39	38	10-130	4	30			
Indeno(1,2,3-cd)pyrene	ug/L	ND	83.3	83.3	93.1	95.1	112	114	39-148	2	30			
Isophorone	ug/L	ND	83.3	83.3	76.7	84.4	92	101	23-130	10	30			
N-Nitroso-di-n-propylamine	ug/L	ND	83.3	83.3	80.6	86.4	97	104	25-130	7	30			
N-Nitrosodimethylamine	ug/L	ND	83.3	83.3	59.9	65.9	72	79	22-130	10	30			
N-Nitrosodiphenylamine	ug/L	ND	83.3	83.3	84.0	90.3	101	108	26-134	7	30			

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92623225

Parameter	Units	3757841		3757842		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92613441019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Naphthalene	ug/L	ND	83.3	83.3	61.8	67.7	74	81	14-130	9	30		
Nitrobenzene	ug/L	ND	83.3	83.3	73.2	78.5	88	94	25-130	7	30		
Pentachlorophenol	ug/L	ND	167	167	51.3	44.1	31	26	10-175	15	30		
Phenanthrene	ug/L	ND	83.3	83.3	81.7	88.9	98	107	36-133	8	30		
Phenol	ug/L	ND	83.3	83.3	43.6	49.9	52	60	10-130	14	30		
Pyrene	ug/L	ND	83.3	83.3	87.1	96.8	105	116	40-143	10	30		
2,4,6-Tribromophenol (S)	%						80	91	10-144				
2-Fluorobiphenyl (S)	%						80	94	10-130				
2-Fluorophenol (S)	%						56	63	10-130				
Nitrobenzene-d5 (S)	%						85	97	10-144				
Phenol-d6 (S)	%						50	60	10-130				
Terphenyl-d14 (S)	%						115	136	34-163				

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

QC Batch: 721495 Analysis Method: EPA 8270E  
QC Batch Method: EPA 3510C Analysis Description: 8270E Water MSSV RVE  
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92623225001, 92623225004

METHOD BLANK: 3759169 Matrix: Water

Associated Lab Samples: 92623225001, 92623225004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	1.7	09/06/22 15:12	
1,2-Dichlorobenzene	ug/L	ND	10.0	1.8	09/06/22 15:12	
1,3-Dichlorobenzene	ug/L	ND	10.0	1.6	09/06/22 15:12	
1,4-Dichlorobenzene	ug/L	ND	10.0	1.7	09/06/22 15:12	
1-Methylnaphthalene	ug/L	ND	10.0	2.0	09/06/22 15:12	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	1.2	09/06/22 15:12	
2,4,5-Trichlorophenol	ug/L	ND	10.0	1.4	09/06/22 15:12	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.6	09/06/22 15:12	
2,4-Dichlorophenol	ug/L	ND	10.0	1.4	09/06/22 15:12	
2,4-Dimethylphenol	ug/L	ND	10.0	1.7	09/06/22 15:12	
2,4-Dinitrophenol	ug/L	ND	50.0	26.0	09/06/22 15:12	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.6	09/06/22 15:12	
2,6-Dinitrotoluene	ug/L	ND	10.0	1.7	09/06/22 15:12	
2-Chloronaphthalene	ug/L	ND	10.0	1.7	09/06/22 15:12	
2-Chlorophenol	ug/L	ND	10.0	1.2	09/06/22 15:12	
2-Methylnaphthalene	ug/L	ND	10.0	1.9	09/06/22 15:12	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.9	09/06/22 15:12	
2-Nitroaniline	ug/L	ND	20.0	3.0	09/06/22 15:12	
2-Nitrophenol	ug/L	ND	10.0	1.4	09/06/22 15:12	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.2	09/06/22 15:12	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	8.1	09/06/22 15:12	
3-Nitroaniline	ug/L	ND	20.0	3.8	09/06/22 15:12	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	7.8	09/06/22 15:12	
4-Bromophenylphenyl ether	ug/L	ND	10.0	1.8	09/06/22 15:12	
4-Chloro-3-methylphenol	ug/L	ND	10.0	3.3	09/06/22 15:12	
4-Chloroaniline	ug/L	ND	20.0	3.6	09/06/22 15:12	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	2.0	09/06/22 15:12	
4-Nitroaniline	ug/L	ND	20.0	5.1	09/06/22 15:12	
4-Nitrophenol	ug/L	ND	50.0	6.6	09/06/22 15:12	
Acenaphthene	ug/L	ND	10.0	2.0	09/06/22 15:12	
Acenaphthylene	ug/L	ND	10.0	2.0	09/06/22 15:12	
Aniline	ug/L	ND	10.0	1.6	09/06/22 15:12	
Anthracene	ug/L	ND	10.0	2.3	09/06/22 15:12	
Benzo(a)anthracene	ug/L	ND	10.0	2.7	09/06/22 15:12	
Benzo(a)pyrene	ug/L	ND	10.0	2.8	09/06/22 15:12	
Benzo(b)fluoranthene	ug/L	ND	10.0	2.6	09/06/22 15:12	
Benzo(g,h,i)perylene	ug/L	ND	10.0	2.8	09/06/22 15:12	
Benzo(k)fluoranthene	ug/L	ND	10.0	2.7	09/06/22 15:12	
Benzoic Acid	ug/L	ND	50.0	22.0	09/06/22 15:12	
Benzyl alcohol	ug/L	ND	20.0	2.9	09/06/22 15:12	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

METHOD BLANK: 3759169 Matrix: Water  
Associated Lab Samples: 92623225001, 92623225004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.8	09/06/22 15:12	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	1.9	09/06/22 15:12	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	3.7	09/06/22 15:12	
Butylbenzylphthalate	ug/L	ND	10.0	3.1	09/06/22 15:12	
Chrysene	ug/L	ND	10.0	2.8	09/06/22 15:12	
Di-n-butylphthalate	ug/L	ND	10.0	2.2	09/06/22 15:12	
Di-n-octylphthalate	ug/L	ND	10.0	3.9	09/06/22 15:12	
Dibenz(a,h)anthracene	ug/L	ND	10.0	3.0	09/06/22 15:12	
Dibenzofuran	ug/L	ND	10.0	2.1	09/06/22 15:12	
Diethylphthalate	ug/L	ND	10.0	2.0	09/06/22 15:12	
Dimethylphthalate	ug/L	ND	10.0	2.1	09/06/22 15:12	
Fluoranthene	ug/L	ND	10.0	2.2	09/06/22 15:12	
Fluorene	ug/L	ND	10.0	2.1	09/06/22 15:12	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	1.8	09/06/22 15:12	
Hexachlorobenzene	ug/L	ND	10.0	2.2	09/06/22 15:12	
Hexachlorocyclopentadiene	ug/L	ND	10.0	1.6	09/06/22 15:12	
Hexachloroethane	ug/L	ND	10.0	1.4	09/06/22 15:12	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	2.9	09/06/22 15:12	
Isophorone	ug/L	ND	10.0	1.7	09/06/22 15:12	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	1.3	09/06/22 15:12	
N-Nitrosodimethylamine	ug/L	ND	10.0	1.9	09/06/22 15:12	
N-Nitrosodiphenylamine	ug/L	ND	10.0	3.0	09/06/22 15:12	
Naphthalene	ug/L	ND	10.0	2.1	09/06/22 15:12	
Nitrobenzene	ug/L	ND	10.0	1.9	09/06/22 15:12	
Pentachlorophenol	ug/L	ND	20.0	3.8	09/06/22 15:12	
Phenanthrene	ug/L	ND	10.0	2.0	09/06/22 15:12	
Phenol	ug/L	ND	10.0	1.4	09/06/22 15:12	
Pyrene	ug/L	ND	10.0	2.2	09/06/22 15:12	
2,4,6-Tribromophenol (S)	%	71	10-144		09/06/22 15:12	
2-Fluorobiphenyl (S)	%	68	10-130		09/06/22 15:12	
2-Fluorophenol (S)	%	61	10-130		09/06/22 15:12	
Nitrobenzene-d5 (S)	%	90	10-144		09/06/22 15:12	
Phenol-d6 (S)	%	54	10-130		09/06/22 15:12	
Terphenyl-d14 (S)	%	129	34-163		09/06/22 15:12	

LABORATORY CONTROL SAMPLE: 3759170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	21.7	43	18-130	
1,2-Dichlorobenzene	ug/L	50	18.0	36	20-130	
1,3-Dichlorobenzene	ug/L	50	15.3	31	18-130	
1,4-Dichlorobenzene	ug/L	50	16.1	32	18-130	
1-Methylnaphthalene	ug/L	50	27.3	55	29-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	20.8	42	28-130	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

LABORATORY CONTROL SAMPLE: 3759170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	50	24.7	49	35-130	
2,4,6-Trichlorophenol	ug/L	50	23.6	47	31-130	
2,4-Dichlorophenol	ug/L	50	24.9	50	35-130	
2,4-Dimethylphenol	ug/L	50	29.9	60	34-130	
2,4-Dinitrophenol	ug/L	250	80.2	32	10-153	
2,4-Dinitrotoluene	ug/L	50	31.0	62	37-136	
2,6-Dinitrotoluene	ug/L	50	29.6	59	33-136	
2-Chloronaphthalene	ug/L	50	27.2	54	26-130	
2-Chlorophenol	ug/L	50	23.6	47	37-130	
2-Methylnaphthalene	ug/L	50	26.8	54	29-130	
2-Methylphenol(o-Cresol)	ug/L	50	23.3	47	35-130	
2-Nitroaniline	ug/L	100	47.9	48	37-130	
2-Nitrophenol	ug/L	50	23.4	47	32-130	
3&4-Methylphenol(m&p Cresol)	ug/L	50	22.5	45	34-130	
3,3'-Dichlorobenzidine	ug/L	100	56.1	56	34-136	
3-Nitroaniline	ug/L	100	58.6	59	37-138	
4,6-Dinitro-2-methylphenol	ug/L	100	43.9	44	21-157	
4-Bromophenylphenyl ether	ug/L	50	27.9	56	38-130	
4-Chloro-3-methylphenol	ug/L	100	52.1	52	37-130	
4-Chloroaniline	ug/L	100	54.6	55	38-130	
4-Chlorophenylphenyl ether	ug/L	50	27.2	54	33-130	
4-Nitroaniline	ug/L	100	58.9	59	42-137	
4-Nitrophenol	ug/L	250	53.0	21	10-130	
Acenaphthene	ug/L	50	28.4	57	33-130	
Acenaphthylene	ug/L	50	28.0	56	35-130	
Aniline	ug/L	50	22.0	44	22-130	
Anthracene	ug/L	50	27.1	54	48-130	
Benzo(a)anthracene	ug/L	50	29.0	58	48-137	
Benzo(a)pyrene	ug/L	50	30.3	61	49-138	
Benzo(b)fluoranthene	ug/L	50	31.4	63	52-138	
Benzo(g,h,i)perylene	ug/L	50	33.1	66	48-140	
Benzo(k)fluoranthene	ug/L	50	31.3	63	48-139	
Benzoic Acid	ug/L	250	59.0	24	10-130	
Benzyl alcohol	ug/L	100	48.0	48	35-130	
bis(2-Chloroethoxy)methane	ug/L	50	27.0	54	34-130	
bis(2-Chloroethyl) ether	ug/L	50	26.3	53	36-130	
bis(2-Ethylhexyl)phthalate	ug/L	50	29.9	60	32-165	
Butylbenzylphthalate	ug/L	50	29.1	58	34-161	
Chrysene	ug/L	50	30.0	60	47-131	
Di-n-butylphthalate	ug/L	50	27.8	56	39-144	
Di-n-octylphthalate	ug/L	50	29.8	60	30-170	
Dibenz(a,h)anthracene	ug/L	50	32.3	65	49-138	
Dibenzofuran	ug/L	50	28.5	57	33-130	
Diethylphthalate	ug/L	50	29.0	58	38-131	
Dimethylphthalate	ug/L	50	29.2	58	37-130	
Fluoranthene	ug/L	50	30.9	62	46-137	
Fluorene	ug/L	50	29.6	59	37-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

LABORATORY CONTROL SAMPLE: 3759170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	50	18.1	36	11-130	
Hexachlorobenzene	ug/L	50	27.6	55	38-130	
Hexachlorocyclopentadiene	ug/L	50	18.1	36	10-130	
Hexachloroethane	ug/L	50	14.5	29	14-130	
Indeno(1,2,3-cd)pyrene	ug/L	50	33.4	67	41-130	
Isophorone	ug/L	50	26.9	54	33-130	
N-Nitroso-di-n-propylamine	ug/L	50	26.3	53	36-130	
N-Nitrosodimethylamine	ug/L	50	21.6	43	34-130	
N-Nitrosodiphenylamine	ug/L	50	29.8	60	37-130	
Naphthalene	ug/L	50	23.9	48	30-130	
Nitrobenzene	ug/L	50	25.3	51	36-130	
Pentachlorophenol	ug/L	100	43.5	44	23-149	
Phenanthrene	ug/L	50	30.5	61	44-130	
Phenol	ug/L	50	16.5	33	18-130	
Pyrene	ug/L	50	30.5	61	47-134	
2,4,6-Tribromophenol (S)	%			63	10-144	
2-Fluorobiphenyl (S)	%			56	10-130	
2-Fluorophenol (S)	%			39	10-130	
Nitrobenzene-d5 (S)	%			54	10-144	
Phenol-d6 (S)	%			35	10-130	
Terphenyl-d14 (S)	%			62	34-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3759198 3759199

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623694001 Result	Spike Conc.	Spike Conc.	Conc.								
1,2,4-Trichlorobenzene	ug/L	ND	50	50	50	14.6	11.8	29	24	10-130	21	30	
1,2-Dichlorobenzene	ug/L	ND	50	50	50	8.1J	6.4J	16	13	10-130		30	
1,3-Dichlorobenzene	ug/L	ND	50	50	50	5.6J	4.8J	11	10	10-130		30	
1,4-Dichlorobenzene	ug/L	ND	50	50	50	6.5J	5.5J	13	11	10-130		30	
1-Methylnaphthalene	ug/L	ND	50	50	50	34.5	30.2	69	60	10-130	14	30	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	50	50	50	27.0	22.9	54	46	12-142	16	30	
2,4,5-Trichlorophenol	ug/L	ND	50	50	50	37.0	30.1	74	60	10-143	21	30	
2,4,6-Trichlorophenol	ug/L	ND	50	50	50	28.2	26.4	56	53	10-147	7	30	
2,4-Dichlorophenol	ug/L	ND	50	50	50	37.5	33.1	75	66	10-138	12	30	
2,4-Dimethylphenol	ug/L	ND	50	50	50	51.4	44.8	103	90	25-130	14	30	
2,4-Dinitrophenol	ug/L	ND	250	250	250	70.5	91.6	28	37	10-165	26	30	
2,4-Dinitrotoluene	ug/L	ND	50	50	50	56.6	49.4	113	99	29-148	14	30	
2,6-Dinitrotoluene	ug/L	ND	50	50	50	56.4	47.4	113	95	26-146	17	30	
2-Chloronaphthalene	ug/L	ND	50	50	50	41.0	37.4	82	75	11-130	9	30	
2-Chlorophenol	ug/L	ND	50	50	50	30.7	26.9	61	54	10-133	13	30	
2-Methylnaphthalene	ug/L	ND	50	50	50	31.4	28.2	63	56	13-130	11	30	
2-Methylphenol(o-Cresol)	ug/L	ND	50	50	50	39.4	33.3	79	67	20-130	17	30	
2-Nitroaniline	ug/L	ND	100	100	100	95.4	82.0	95	82	24-136	15	30	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92623225

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3759198 3759199												
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92623694001 Result	Spike Conc.	Spike Conc.	MS Result							
2-Nitrophenol	ug/L	ND	50	50	32.9	29.0	66	58	10-153	12	30	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	50	50	39.5	33.8	79	68	16-130	15	30	
3,3'-Dichlorobenzidine	ug/L	ND	100	100	105	88.7	105	89	10-153	17	30	
3-Nitroaniline	ug/L	ND	100	100	114	97.6	114	98	22-151	15	30	
4,6-Dinitro-2-methylphenol	ug/L	ND	100	100	42.7	49.6	43	50	10-180	15	30	
4-Bromophenylphenyl ether	ug/L	ND	50	50	52.2	44.0	104	88	25-130	17	30	
4-Chloro-3-methylphenol	ug/L	ND	100	100	97.1	81.7	97	82	25-133	17	30	
4-Chloroaniline	ug/L	ND	100	100	96.4	84.1	96	84	14-132	14	30	
4-Chlorophenylphenyl ether	ug/L	ND	50	50	48.4	41.9	97	84	19-130	14	30	
4-Nitroaniline	ug/L	ND	100	100	109	94.9	109	95	29-150	14	30	
4-Nitrophenol	ug/L	ND	250	250	42.3J	57.8	17	23	10-130		30	
Acenaphthene	ug/L	ND	50	50	48.3	42.9	97	86	16-130	12	30	
Acenaphthylene	ug/L	ND	50	50	47.6	41.8	95	84	15-137	13	30	
Aniline	ug/L	ND	50	50	34.5	28.8	69	58	10-130	18	30	
Anthracene	ug/L	ND	50	50	51.3	43.1	103	86	37-136	17	30	
Benzo(a)anthracene	ug/L	ND	50	50	55.6	47.0	111	94	40-145	17	30	
Benzo(a)pyrene	ug/L	ND	50	50	57.3	49.0	115	98	41-146	16	30	
Benzo(b)fluoranthene	ug/L	ND	50	50	57.6	49.2	115	98	39-151	16	30	
Benzo(g,h,i)perylene	ug/L	ND	50	50	59.4	51.3	119	103	40-147	15	30	
Benzo(k)fluoranthene	ug/L	ND	50	50	59.9	50.3	120	101	40-146	17	30	
Benzoic Acid	ug/L	ND	250	250	62.2	66.4	25	27	10-130	7	30	
Benzyl alcohol	ug/L	ND	100	100	86.3	71.5	86	71	25-130	19	30	
bis(2-Chloroethoxy)methane	ug/L	ND	50	50	44.4	37.2	89	74	23-130	18	30	
bis(2-Chloroethyl) ether	ug/L	ND	50	50	38.6	33.1	77	66	25-130	15	30	
bis(2-Ethylhexyl)phthalate	ug/L	ND	50	50	59.3	51.1	119	102	28-166	15	30	
Butylbenzylphthalate	ug/L	ND	50	50	60.1	51.0	120	102	33-165	16	30	
Chrysene	ug/L	ND	50	50	55.4	48.2	111	96	38-141	14	30	
Di-n-butylphthalate	ug/L	ND	50	50	55.4	46.2	111	92	32-153	18	30	
Di-n-octylphthalate	ug/L	ND	50	50	61.4	52.1	123	104	30-175	16	30	
Dibenz(a,h)anthracene	ug/L	ND	50	50	59.7	51.1	119	102	39-148	15	30	
Dibenzofuran	ug/L	ND	50	50	50.4	43.7	101	87	20-130	14	30	
Diethylphthalate	ug/L	ND	50	50	53.8	46.6	108	93	28-142	14	30	
Dimethylphthalate	ug/L	ND	50	50	53.3	46.0	107	92	26-136	15	30	
Fluoranthene	ug/L	ND	50	50	56.6	48.5	113	97	39-143	16	30	
Fluorene	ug/L	ND	50	50	52.5	45.8	105	92	24-132	14	30	
Hexachloro-1,3-butadiene	ug/L	ND	50	50	6.3J	5.0J	13	10	10-130		30	
Hexachlorobenzene	ug/L	ND	50	50	52.9	43.8	106	88	29-130	19	30	
Hexachlorocyclopentadiene	ug/L	ND	50	50	16.9	15.0	34	30	10-130	12	30	
Hexachloroethane	ug/L	ND	50	50	3.3J	2.3J	7	5	10-130		30	M1
Indeno(1,2,3-cd)pyrene	ug/L	ND	50	50	59.9	51.9	120	104	39-148	14	30	
Isophorone	ug/L	ND	50	50	48.0	41.3	96	83	23-130	15	30	
N-Nitroso-di-n-propylamine	ug/L	ND	50	50	44.3	37.3	89	75	25-130	17	30	
N-Nitrosodimethylamine	ug/L	ND	50	50	34.3	29.6	69	59	22-130	15	30	
N-Nitrosodiphenylamine	ug/L	ND	50	50	54.9	45.8	110	92	26-134	18	30	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92623225

Parameter	Units	3759198		3759199		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623694001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Naphthalene	ug/L	ND	50	50	22.2	18.0	44	36	14-130	21	30		
Nitrobenzene	ug/L	ND	50	50	37.1	32.3	74	65	25-130	14	30		
Pentachlorophenol	ug/L	ND	100	100	39.5	40.9	40	41	10-175	3	30		
Phenanthrene	ug/L	ND	50	50	56.2	47.9	112	96	36-133	16	30		
Phenol	ug/L	ND	50	50	24.5	21.3	49	43	10-130	14	30		
Pyrene	ug/L	ND	50	50	57.2	48.9	114	98	40-143	16	30		
2,4,6-Tribromophenol (S)	%						82	65	10-144				
2-Fluorobiphenyl (S)	%						72	58	10-130				
2-Fluorophenol (S)	%						39	38	10-130				
Nitrobenzene-d5 (S)	%						80	69	10-144				
Phenol-d6 (S)	%						48	39	10-130				
Terphenyl-d14 (S)	%						124	103	34-163				

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### QUALITY CONTROL DATA

Project: TCH-009  
 Pace Project No.: 92623225

QC Batch: 721579 Analysis Method: EPA 8270E  
 QC Batch Method: EPA 3510C Analysis Description: 8270E Water MSSV RVE  
 Laboratory: Pace Analytical Services - Charlotte  
 Associated Lab Samples: 92623225002, 92623225005, 92623225006

METHOD BLANK: 3759571 Matrix: Water  
 Associated Lab Samples: 92623225002, 92623225005, 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	1.7	09/06/22 16:56	
1,2-Dichlorobenzene	ug/L	ND	10.0	1.8	09/06/22 16:56	
1,3-Dichlorobenzene	ug/L	ND	10.0	1.6	09/06/22 16:56	
1,4-Dichlorobenzene	ug/L	ND	10.0	1.7	09/06/22 16:56	
1-Methylnaphthalene	ug/L	ND	10.0	2.0	09/06/22 16:56	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	1.2	09/06/22 16:56	
2,4,5-Trichlorophenol	ug/L	ND	10.0	1.4	09/06/22 16:56	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.6	09/06/22 16:56	
2,4-Dichlorophenol	ug/L	ND	10.0	1.4	09/06/22 16:56	
2,4-Dimethylphenol	ug/L	ND	10.0	1.7	09/06/22 16:56	
2,4-Dinitrophenol	ug/L	ND	50.0	26.0	09/06/22 16:56	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.6	09/06/22 16:56	
2,6-Dinitrotoluene	ug/L	ND	10.0	1.7	09/06/22 16:56	
2-Chloronaphthalene	ug/L	ND	10.0	1.7	09/06/22 16:56	
2-Chlorophenol	ug/L	ND	10.0	1.2	09/06/22 16:56	
2-Methylnaphthalene	ug/L	ND	10.0	1.9	09/06/22 16:56	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.9	09/06/22 16:56	
2-Nitroaniline	ug/L	ND	20.0	3.0	09/06/22 16:56	
2-Nitrophenol	ug/L	ND	10.0	1.4	09/06/22 16:56	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.2	09/06/22 16:56	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	8.1	09/06/22 16:56	
3-Nitroaniline	ug/L	ND	20.0	3.8	09/06/22 16:56	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	7.8	09/06/22 16:56	
4-Bromophenylphenyl ether	ug/L	ND	10.0	1.8	09/06/22 16:56	
4-Chloro-3-methylphenol	ug/L	ND	10.0	3.3	09/06/22 16:56	
4-Chloroaniline	ug/L	ND	20.0	3.6	09/06/22 16:56	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	2.0	09/06/22 16:56	
4-Nitroaniline	ug/L	ND	20.0	5.1	09/06/22 16:56	
4-Nitrophenol	ug/L	ND	50.0	6.6	09/06/22 16:56	
Acenaphthene	ug/L	ND	10.0	2.0	09/06/22 16:56	
Acenaphthylene	ug/L	ND	10.0	2.0	09/06/22 16:56	
Aniline	ug/L	ND	10.0	1.6	09/06/22 16:56	
Anthracene	ug/L	ND	10.0	2.3	09/06/22 16:56	
Benzo(a)anthracene	ug/L	ND	10.0	2.7	09/06/22 16:56	
Benzo(a)pyrene	ug/L	ND	10.0	2.8	09/06/22 16:56	
Benzo(b)fluoranthene	ug/L	ND	10.0	2.6	09/06/22 16:56	
Benzo(g,h,i)perylene	ug/L	ND	10.0	2.8	09/06/22 16:56	
Benzo(k)fluoranthene	ug/L	ND	10.0	2.7	09/06/22 16:56	
Benzoic Acid	ug/L	ND	50.0	22.0	09/06/22 16:56	
Benzyl alcohol	ug/L	ND	20.0	2.9	09/06/22 16:56	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

METHOD BLANK: 3759571 Matrix: Water  
Associated Lab Samples: 92623225002, 92623225005, 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.8	09/06/22 16:56	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	1.9	09/06/22 16:56	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	3.7	09/06/22 16:56	
Butylbenzylphthalate	ug/L	ND	10.0	3.1	09/06/22 16:56	
Chrysene	ug/L	ND	10.0	2.8	09/06/22 16:56	
Di-n-butylphthalate	ug/L	ND	10.0	2.2	09/06/22 16:56	
Di-n-octylphthalate	ug/L	ND	10.0	3.9	09/06/22 16:56	
Dibenz(a,h)anthracene	ug/L	ND	10.0	3.0	09/06/22 16:56	
Dibenzofuran	ug/L	ND	10.0	2.1	09/06/22 16:56	
Diethylphthalate	ug/L	ND	10.0	2.0	09/06/22 16:56	
Dimethylphthalate	ug/L	ND	10.0	2.1	09/06/22 16:56	
Fluoranthene	ug/L	ND	10.0	2.2	09/06/22 16:56	
Fluorene	ug/L	ND	10.0	2.1	09/06/22 16:56	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	1.8	09/06/22 16:56	
Hexachlorobenzene	ug/L	ND	10.0	2.2	09/06/22 16:56	
Hexachlorocyclopentadiene	ug/L	ND	10.0	1.6	09/06/22 16:56	
Hexachloroethane	ug/L	ND	10.0	1.4	09/06/22 16:56	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	2.9	09/06/22 16:56	
Isophorone	ug/L	ND	10.0	1.7	09/06/22 16:56	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	1.3	09/06/22 16:56	
N-Nitrosodimethylamine	ug/L	ND	10.0	1.9	09/06/22 16:56	
N-Nitrosodiphenylamine	ug/L	ND	10.0	3.0	09/06/22 16:56	
Naphthalene	ug/L	ND	10.0	2.1	09/06/22 16:56	
Nitrobenzene	ug/L	ND	10.0	1.9	09/06/22 16:56	
Pentachlorophenol	ug/L	ND	20.0	3.8	09/06/22 16:56	
Phenanthrene	ug/L	ND	10.0	2.0	09/06/22 16:56	
Phenol	ug/L	ND	10.0	1.4	09/06/22 16:56	
Pyrene	ug/L	ND	10.0	2.2	09/06/22 16:56	
2,4,6-Tribromophenol (S)	%	72	10-144		09/06/22 16:56	
2-Fluorobiphenyl (S)	%	46	10-130		09/06/22 16:56	
2-Fluorophenol (S)	%	49	10-130		09/06/22 16:56	
Nitrobenzene-d5 (S)	%	61	10-144		09/06/22 16:56	
Phenol-d6 (S)	%	42	10-130		09/06/22 16:56	
Terphenyl-d14 (S)	%	98	34-163		09/06/22 16:56	

LABORATORY CONTROL SAMPLE: 3759572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	30.6	61	18-130	
1,2-Dichlorobenzene	ug/L	50	23.7	47	20-130	
1,3-Dichlorobenzene	ug/L	50	19.9	40	18-130	
1,4-Dichlorobenzene	ug/L	50	21.1	42	18-130	
1-Methylnaphthalene	ug/L	50	41.3	83	29-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	28.6	57	28-130	

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### QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92623225

LABORATORY CONTROL SAMPLE: 3759572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	50	45.5	91	35-130	
2,4,6-Trichlorophenol	ug/L	50	44.4	89	31-130	
2,4-Dichlorophenol	ug/L	50	41.6	83	35-130	
2,4-Dimethylphenol	ug/L	50	46.0	92	34-130	
2,4-Dinitrophenol	ug/L	250	184	74	10-153	
2,4-Dinitrotoluene	ug/L	50	48.0	96	37-136	
2,6-Dinitrotoluene	ug/L	50	47.7	95	33-136	
2-Chloronaphthalene	ug/L	50	43.6	87	26-130	
2-Chlorophenol	ug/L	50	36.3	73	37-130	
2-Methylnaphthalene	ug/L	50	39.9	80	29-130	
2-Methylphenol(o-Cresol)	ug/L	50	36.6	73	35-130	
2-Nitroaniline	ug/L	100	80.2	80	37-130	
2-Nitrophenol	ug/L	50	38.7	77	32-130	
3&4-Methylphenol(m&p Cresol)	ug/L	50	36.9	74	34-130	
3,3'-Dichlorobenzidine	ug/L	100	92.0	92	34-136	
3-Nitroaniline	ug/L	100	96.7	97	37-138	
4,6-Dinitro-2-methylphenol	ug/L	100	92.9	93	21-157	
4-Bromophenylphenyl ether	ug/L	50	46.4	93	38-130	
4-Chloro-3-methylphenol	ug/L	100	83.1	83	37-130	
4-Chloroaniline	ug/L	100	86.6	87	38-130	
4-Chlorophenylphenyl ether	ug/L	50	42.5	85	33-130	
4-Nitroaniline	ug/L	100	93.5	94	42-137	
4-Nitrophenol	ug/L	250	117	47	10-130	
Acenaphthene	ug/L	50	44.8	90	33-130	
Acenaphthylene	ug/L	50	44.5	89	35-130	
Aniline	ug/L	50	33.7	67	22-130	
Anthracene	ug/L	50	43.6	87	48-130	
Benzo(a)anthracene	ug/L	50	47.0	94	48-137	
Benzo(a)pyrene	ug/L	50	49.0	98	49-138	
Benzo(b)fluoranthene	ug/L	50	50.2	100	52-138	
Benzo(g,h,i)perylene	ug/L	50	50.0	100	48-140	
Benzo(k)fluoranthene	ug/L	50	51.1	102	48-139	
Benzoic Acid	ug/L	250	120	48	10-130	
Benzyl alcohol	ug/L	100	78.3	78	35-130	
bis(2-Chloroethoxy)methane	ug/L	50	40.3	81	34-130	
bis(2-Chloroethyl) ether	ug/L	50	36.2	72	36-130	
bis(2-Ethylhexyl)phthalate	ug/L	50	51.0	102	32-165	
Butylbenzylphthalate	ug/L	50	51.1	102	34-161	
Chrysene	ug/L	50	47.6	95	47-131	
Di-n-butylphthalate	ug/L	50	46.6	93	39-144	
Di-n-octylphthalate	ug/L	50	50.0	100	30-170	
Dibenz(a,h)anthracene	ug/L	50	49.9	100	49-138	
Dibenzofuran	ug/L	50	44.7	89	33-130	
Diethylphthalate	ug/L	50	45.6	91	38-131	
Dimethylphthalate	ug/L	50	45.1	90	37-130	
Fluoranthene	ug/L	50	48.0	96	46-137	
Fluorene	ug/L	50	45.8	92	37-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

LABORATORY CONTROL SAMPLE: 3759572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	50	24.0	48	11-130	
Hexachlorobenzene	ug/L	50	45.6	91	38-130	
Hexachlorocyclopentadiene	ug/L	50	30.5	61	10-130	
Hexachloroethane	ug/L	50	18.6	37	14-130	
Indeno(1,2,3-cd)pyrene	ug/L	50	51.0	102	41-130	
Isophorone	ug/L	50	42.8	86	33-130	
N-Nitroso-di-n-propylamine	ug/L	50	40.1	80	36-130	
N-Nitrosodimethylamine	ug/L	50	31.5	63	34-130	
N-Nitrosodiphenylamine	ug/L	50	49.4	99	37-130	
Naphthalene	ug/L	50	34.7	69	30-130	
Nitrobenzene	ug/L	50	35.9	72	36-130	
Pentachlorophenol	ug/L	100	91.1	91	23-149	
Phenanthrene	ug/L	50	48.7	97	44-130	
Phenol	ug/L	50	26.9	54	18-130	
Pyrene	ug/L	50	50.8	102	47-134	
2,4,6-Tribromophenol (S)	%			109	10-144	
2-Fluorobiphenyl (S)	%			86	10-130	
2-Fluorophenol (S)	%			64	10-130	
Nitrobenzene-d5 (S)	%			79	10-144	
Phenol-d6 (S)	%			56	10-130	
Terphenyl-d14 (S)	%			109	34-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3759573 3759574

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92613441020 Result	Spike Conc.	Spike Conc.	Conc.							
1,2,4-Trichlorobenzene	ug/L	ND	50	50	50	10.8	9.8J	22	20	10-130	30	
1,2-Dichlorobenzene	ug/L	ND	50	50	50	6.1J	6.2J	12	12	10-130	30	
1,3-Dichlorobenzene	ug/L	ND	50	50	50	3.3J	3.6J	7	7	10-130	30	M1
1,4-Dichlorobenzene	ug/L	ND	50	50	50	4.4J	4.4J	9	9	10-130	30	M1
1-Methylnaphthalene	ug/L	ND	50	50	50	22.0	21.8	44	44	10-130	1	30
2,2'-Oxybis(1-chloropropane)	ug/L	ND	50	50	50	16.9	18.1	34	36	12-142	7	30
2,4,5-Trichlorophenol	ug/L	ND	50	50	50	21.7	26.3	43	53	10-143	19	30
2,4,6-Trichlorophenol	ug/L	ND	50	50	50	13.6	16.6	27	33	10-147	20	30
2,4-Dichlorophenol	ug/L	ND	50	50	50	25.6	27.4	51	55	10-138	7	30
2,4-Dimethylphenol	ug/L	ND	50	50	50	40.3	39.5	81	79	25-130	2	30
2,4-Dinitrophenol	ug/L	ND	250	250	250	27.7J	28.4J	11	11	10-165	30	
2,4-Dinitrotoluene	ug/L	ND	50	50	50	36.4	41.1	73	82	29-148	12	30
2,6-Dinitrotoluene	ug/L	ND	50	50	50	38.2	40.1	76	80	26-146	5	30
2-Chloronaphthalene	ug/L	ND	50	50	50	25.5	26.4	51	53	11-130	3	30
2-Chlorophenol	ug/L	ND	50	50	50	18.8	19.7	38	39	10-133	5	30
2-Methylnaphthalene	ug/L	ND	50	50	50	20.9	21.0	42	42	13-130	1	30
2-Methylphenol(o-Cresol)	ug/L	ND	50	50	50	26.0	26.1	52	52	20-130	0	30
2-Nitroaniline	ug/L	ND	100	100	100	57.1	62.9	57	63	24-136	10	30

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3759573 3759574													
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92613441020 Result	Spike Conc.	Spike Conc.	MS Conc.								
2-Nitrophenol	ug/L	ND	50	50	24.3	26.3	49	53	10-153	8	30	v1	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	50	50	28.2	26.8	56	54	16-130	5	30		
3,3'-Dichlorobenzidine	ug/L	ND	100	100	50.0	58.5	50	58	10-153	16	30		
3-Nitroaniline	ug/L	ND	100	100	44.3	46.3	44	46	22-151	4	30		
4,6-Dinitro-2-methylphenol	ug/L	ND	100	100	12.7J	14.7J	13	15	10-180		30		
4-Bromophenylphenyl ether	ug/L	ND	50	50	35.5	40.9	71	82	25-130	14	30		
4-Chloro-3-methylphenol	ug/L	ND	100	100	66.5	72.5	66	73	25-133	9	30		
4-Chloroaniline	ug/L	ND	100	100	45.3	46.5	45	46	14-132	2	30		
4-Chlorophenylphenyl ether	ug/L	ND	50	50	31.1	35.3	62	71	19-130	12	30		
4-Nitroaniline	ug/L	ND	100	100	37.6	38.1	38	38	29-150	1	30		
4-Nitrophenol	ug/L	ND	250	250	6.6J	12.4J	3	5	10-130		30	M1	
Acenaphthene	ug/L	ND	50	50	28.1	30.2	56	60	16-130	7	30		
Acenaphthylene	ug/L	ND	50	50	28.9	30.4	58	61	15-137	5	30		
Aniline	ug/L	ND	50	50	18.9	18.7	38	37	10-130	1	30		
Anthracene	ug/L	ND	50	50	31.8	36.9	64	74	37-136	15	30		
Benzo(a)anthracene	ug/L	ND	50	50	39.0	47.4	78	95	40-145	19	30		
Benzo(a)pyrene	ug/L	ND	50	50	39.9	49.5	80	99	41-146	21	30		
Benzo(b)fluoranthene	ug/L	ND	50	50	40.1	48.9	80	98	39-151	20	30		
Benzo(g,h,i)perylene	ug/L	ND	50	50	42.9	50.8	86	102	40-147	17	30		
Benzo(k)fluoranthene	ug/L	ND	50	50	39.5	47.5	79	95	40-146	18	30		
Benzoic Acid	ug/L	ND	250	250	ND	ND	0	0	10-130		30	M1	
Benzyl alcohol	ug/L	ND	100	100	57.2	53.7	57	54	25-130	6	30		
bis(2-Chloroethoxy)methane	ug/L	ND	50	50	27.4	27.2	55	54	23-130	1	30		
bis(2-Chloroethyl) ether	ug/L	ND	50	50	21.9	23.1	44	46	25-130	5	30		
bis(2-Ethylhexyl)phthalate	ug/L	ND	50	50	44.0	58.1	88	116	28-166	28	30		
Butylbenzylphthalate	ug/L	ND	50	50	48.5	60.8	97	122	33-165	23	30	v1	
Chrysene	ug/L	ND	50	50	38.0	46.0	76	92	38-141	19	30		
Di-n-butylphthalate	ug/L	ND	50	50	40.8	50.1	82	100	32-153	20	30		
Di-n-octylphthalate	ug/L	ND	50	50	39.5	52.5	79	105	30-175	28	30		
Dibenz(a,h)anthracene	ug/L	ND	50	50	40.5	51.2	81	102	39-148	24	30		
Dibenzofuran	ug/L	ND	50	50	30.4	33.1	61	66	20-130	8	30		
Diethylphthalate	ug/L	ND	50	50	34.5	39.6	69	79	28-142	14	30		
Dimethylphthalate	ug/L	ND	50	50	33.8	36.9	68	74	26-136	9	30		
Fluoranthene	ug/L	ND	50	50	36.6	44.6	73	89	39-143	20	30		
Fluorene	ug/L	ND	50	50	31.2	34.4	62	69	24-132	10	30		
Hexachloro-1,3-butadiene	ug/L	ND	50	50	6.5J	5.6J	13	11	10-130		30		
Hexachlorobenzene	ug/L	ND	50	50	33.5	39.9	67	80	29-130	18	30		
Hexachlorocyclopentadiene	ug/L	ND	50	50	12.0	12.3	24	25	10-130	2	30		
Hexachloroethane	ug/L	ND	50	50	3.0J	2.6J	6	5	10-130		30	M1	
Indeno(1,2,3-cd)pyrene	ug/L	ND	50	50	43.7	50.6	87	101	39-148	15	30		
Isophorone	ug/L	ND	50	50	32.9	32.0	66	64	23-130	3	30		
N-Nitroso-di-n-propylamine	ug/L	ND	50	50	29.7	28.2	59	56	25-130	5	30		
N-Nitrosodimethylamine	ug/L	ND	50	50	22.7	22.4	45	45	22-130	1	30		
N-Nitrosodiphenylamine	ug/L	ND	50	50	35.2	41.9	70	84	26-134	17	30		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92623225

Parameter	Units	3759573		3759574		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92613441020 Result	MS Spike Conc.	MSD Spike Conc.									
Naphthalene	ug/L	ND	50	50	13.3	13.6	27	27	14-130	2	30		
Nitrobenzene	ug/L	ND	50	50	29.8	31.8	60	64	25-130	7	30		
Pentachlorophenol	ug/L	ND	100	100	4.5J	4.3J	5	4	10-175		30	M1	
Phenanthrene	ug/L	ND	50	50	34.6	40.2	69	80	36-133	15	30		
Phenol	ug/L	ND	50	50	18.3	17.4	37	35	10-130	5	30		
Pyrene	ug/L	ND	50	50	42.1	51.5	84	103	40-143	20	30		
2,4,6-Tribromophenol (S)	%						39	49	10-144				
2-Fluorobiphenyl (S)	%						41	45	10-130				
2-Fluorophenol (S)	%						28	28	10-130				
Nitrobenzene-d5 (S)	%						54	53	10-144				
Phenol-d6 (S)	%						37	35	10-130				
Terphenyl-d14 (S)	%						89	115	34-163				

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**QUALITY CONTROL DATA**

Project: TCH-009

Pace Project No.: 92623225

QC Batch: 1928482

Analysis Method: EPA 7199

QC Batch Method: 7199

Analysis Description: Wet Chemistry 7199

Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

METHOD BLANK: R3840544-1

Matrix: Water

Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	ND	0.000100	0.0000400	09/20/22 11:58	

LABORATORY CONTROL SAMPLE: R3840544-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	0.00200	0.00213	106	90.0-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3840544-4 R3840544-5

Parameter	Units	L1529674-05 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/L	ND	0.00100	0.00100	0.00101	0.000999	101	99.9	90.0-110	0.691	20	

MATRIX SPIKE SAMPLE: R3840544-7

Parameter	Units	L1533052-02 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	ND	0.00100	0.00104	104	90.0-110	

SAMPLE DUPLICATE: R3840544-3

Parameter	Units	L1529674-04 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	ND	ND	0.00	20	

SAMPLE DUPLICATE: R3840544-6

Parameter	Units	L1533052-01 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	0.0108	0.0108	0.101	20	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

QC Batch: 721002      Analysis Method: SM 2540C-2015  
QC Batch Method: SM 2540C-2015      Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

METHOD BLANK: 3757020      Matrix: Water  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/01/22 13:58	

LABORATORY CONTROL SAMPLE: 3757021

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	251	248	99	90-110	

SAMPLE DUPLICATE: 3757022

Parameter	Units	92622967002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	474	467	1	25	

SAMPLE DUPLICATE: 3757023

Parameter	Units	92623328006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2070	2050	1	25	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623225

QC Batch: 720787 Analysis Method: EPA 9056A  
QC Batch Method: EPA 9056A Analysis Description: 9056 IC Anions  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

METHOD BLANK: 3756051 Matrix: Water  
Associated Lab Samples: 92623225001, 92623225002, 92623225003, 92623225004, 92623225005, 92623225006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/31/22 19:29	
Fluoride	mg/L	ND	0.10	0.050	08/31/22 19:29	
Nitrate as N	mg/L	ND	0.10	0.060	08/31/22 19:29	
Sulfate	mg/L	ND	1.0	0.50	08/31/22 19:29	

LABORATORY CONTROL SAMPLE: 3756052

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.0	100	90-110	
Fluoride	mg/L	2.5	2.4	95	90-110	
Nitrate as N	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	49.6	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3756053 3756054

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623285005 Result	Spike Conc.	Spike Conc.	Result						
Chloride	mg/L	1.7	50	50	51.9	53.3	101	103	90-110	3	10
Fluoride	mg/L	ND	2.5	2.5	3.3	3.2	129	126	90-110	2	10 M1
Nitrate as N	mg/L	ND	2.5	2.5	2.4	2.5	95	99	90-110	4	10
Sulfate	mg/L	0.72J	50	50	52.3	52.8	103	104	90-110	1	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3756287 3756288

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623225006 Result	Spike Conc.	Spike Conc.	Result						
Chloride	mg/L	61.8	50	50	112	113	100	102	90-110	1	10
Fluoride	mg/L	0.068J	2.5	2.5	2.4	2.4	93	94	90-110	1	10
Nitrate as N	mg/L	ND	2.5	2.5	2.5	2.6	99	100	90-110	1	10
Sulfate	mg/L	21.4	50	50	73.5	74.1	104	105	90-110	1	10

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## QUALIFIERS

Project: TCH-009  
Pace Project No.: 92623225

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

- |    |  |
|----|--|
| E  | Analyte concentration exceeded the calibration range. The reported result is estimated.  |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.  |
| P4 | Sample field preservation does not meet EPA or method recommendations for this analysis.   |
| S0 | Surrogate recovery outside laboratory control limits.  |
| T3 | Insufficient sample received from client to perform the analysis per EPA method requirements.  |
| v1 | The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias. |

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TCH-009  
Pace Project No.: 92623225

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92623225001	MW-3A	EPA 3010A	721411	EPA 6010D	721431
92623225002	MW-4A	EPA 3010A	721411	EPA 6010D	721431
92623225003	MW-5	EPA 3010A	721411	EPA 6010D	721431
92623225004	MW-6	EPA 3010A	721411	EPA 6010D	721431
92623225005	MW-9	EPA 3010A	721411	EPA 6010D	721431
92623225006	MW-11D	EPA 3010A	721411	EPA 6010D	721431
92623225001	MW-3A	EPA 3010A	721220	EPA 6020B	721340
92623225002	MW-4A	EPA 3010A	721220	EPA 6020B	721340
92623225003	MW-5	EPA 3010A	721220	EPA 6020B	721340
92623225004	MW-6	EPA 3010A	721220	EPA 6020B	721340
92623225005	MW-9	EPA 3010A	721220	EPA 6020B	721340
92623225006	MW-11D	EPA 3010A	721220	EPA 6020B	721340
92623225001	MW-3A	EPA 7470A	721990	EPA 7470A	722122
92623225002	MW-4A	EPA 7470A	721990	EPA 7470A	722122
92623225003	MW-5	EPA 7470A	721990	EPA 7470A	722122
92623225004	MW-6	EPA 7470A	721990	EPA 7470A	722122
92623225005	MW-9	EPA 7470A	721990	EPA 7470A	722122
92623225006	MW-11D	EPA 7470A	721990	EPA 7470A	722122
92623225001	MW-3A	EPA 3510C	721495	EPA 8270E	721583
92623225002	MW-4A	EPA 3510C	721579	EPA 8270E	721754
92623225003	MW-5	EPA 3510C	721207	EPA 8270E	721314
92623225004	MW-6	EPA 3510C	721495	EPA 8270E	721583
92623225005	MW-9	EPA 3510C	721579	EPA 8270E	721754
92623225006	MW-11D	EPA 3510C	721579	EPA 8270E	721754
92623225001	MW-3A	EPA 8260D	721648		
92623225002	MW-4A	EPA 8260D	721648		
92623225003	MW-5	EPA 8260D	721648		
92623225004	MW-6	EPA 8260D	721648		
92623225005	MW-9	EPA 8260D	721648		
92623225006	MW-11D	EPA 8260D	721650		
92623225007	Trip Blank-1	EPA 8260D	721285		
92623225001	MW-3A	EPA 8260D Mod.	721034		
92623225002	MW-4A	EPA 8260D Mod.	721034		
92623225003	MW-5	EPA 8260D Mod.	721034		
92623225004	MW-6	EPA 8260D Mod.	721034		
92623225005	MW-9	EPA 8260D Mod.	721034		
92623225006	MW-11D	EPA 8260D Mod.	721034		
92623225007	Trip Blank-1	EPA 8260D Mod.	721034		
92623225001	MW-3A	7199	1928482	EPA 7199	1928482
92623225002	MW-4A	7199	1928482	EPA 7199	1928482
92623225003	MW-5	7199	1928482	EPA 7199	1928482
92623225004	MW-6	7199	1928482	EPA 7199	1928482
92623225005	MW-9	7199	1928482	EPA 7199	1928482

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TCH-009

Pace Project No.: 92623225

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92623225006	MW-11D	7199	1928482	EPA 7199	1928482
92623225001	MW-3A	SM 2540C-2015	721002		
92623225002	MW-4A	SM 2540C-2015	721002		
92623225003	MW-5	SM 2540C-2015	721002		
92623225004	MW-6	SM 2540C-2015	721002		
92623225005	MW-9	SM 2540C-2015	721002		
92623225006	MW-11D	SM 2540C-2015	721002		
92623225001	MW-3A	EPA 9056A	720787		
92623225002	MW-4A	EPA 9056A	720787		
92623225003	MW-5	EPA 9056A	720787		
92623225004	MW-6	EPA 9056A	720787		
92623225005	MW-9	EPA 9056A	720787		
92623225006	MW-11D	EPA 9056A	720787		

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DC# Title: ENV-FRM-HUN1-0084 v01\_Tech Spec Sample Condition  
 Upon Receipt  
 Effective Date: 05/12/2022

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

Hart + Hickman

Project #:

92623225

Courier:  Fed Ex  UPS  USPS  Other: Client

Carrier Tracking Number:

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 8-31-22 CMW

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A

Thermometer:  IR Gun ID: 917005 Type of Ice:  Wet  Blue  None

Cooler Temp (°C): 0.3 Correction Factor: Add / Subtract (°C) 0.0

Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Corrected Cooler Temp (°C): 0.3

USDA Regulated Soil ( N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  
 Yes  No

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)?  Yes  No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Temp Log: Temp must be maintained at <6°C during login, record temp every 20 minutes.	
Time opened:	Temp:
Time:	put in cooler
Time:	Temp:

Person Contacted:

Date/Time:

Project Manager SCURF Review:

Date:

Project Manager SRF Review:

Date:



September 21, 2022

Jared Wilke  
Hart & Hickman  
3921 Sunset Ridge Rd  
Suite 301  
Raleigh, NC 27607

RE: Project: TCH-009  
Pace Project No.: 92623351

Dear Jared Wilke:

Enclosed are the analytical results for sample(s) received by the laboratory on September 01, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Godwin  
kevin.godwin@pacelabs.com  
1(704)875-9092  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: TCH-009  
Pace Project No.: 92623351

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### Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122  
Alabama Certification #: 40660  
Alaska Certification #: 17-026  
Arizona Certification #: AZ0612  
Arkansas Certification #: 88-0469  
California Certification #: 2932  
Canada Certification #: 1461.01  
Colorado Certification #: TN00003  
Connecticut Certification #: PH-0197  
DOD Certification #: #1461.01  
EPA# TN00003  
Florida Certification #: E87487  
Georgia DW Certification #: 923  
Georgia Certification: NELAP  
Idaho Certification #: TN00003  
Illinois Certification #: 200008  
Indiana Certification #: C-TN-01  
Iowa Certification #: 364  
Kansas Certification #: E-10277  
Kentucky UST Certification #: 16  
Kentucky Certification #: 90010  
Louisiana Certification #: AI30792  
Louisiana DW Certification #: LA180010  
Maine Certification #: TN0002  
Maryland Certification #: 324  
Massachusetts Certification #: M-TN003  
Michigan Certification #: 9958  
Minnesota Certification #: 047-999-395  
Mississippi Certification #: TN00003  
Missouri Certification #: 340  
Montana Certification #: CERT0086  
Nebraska Certification #: NE-OS-15-05

Nevada Certification #: TN-03-2002-34  
New Hampshire Certification #: 2975  
New Jersey Certification #: TN002  
New Mexico DW Certification  
New York Certification #: 11742  
North Carolina Aquatic Toxicity Certification #: 41  
North Carolina Drinking Water Certification #: 21704  
North Carolina Environmental Certificate #: 375  
North Dakota Certification #: R-140  
Ohio VAP Certification #: CL0069  
Oklahoma Certification #: 9915  
Oregon Certification #: TN200002  
Pennsylvania Certification #: 68-02979  
Rhode Island Certification #: LAO00356  
South Carolina Certification #: 84004  
South Dakota Certification  
Tennessee DW/Chem/Micro Certification #: 2006  
Texas Mold Certification #: LAB0152  
Texas Certification #: T 104704245-17-14  
USDA Soil Permit #: P330-15-00234  
Utah Certification #: TN00003  
Virginia Certification #: VT2006  
Vermont Dept. of Health: ID# VT-2006  
Virginia Certification #: 460132  
Washington Certification #: C847  
West Virginia Certification #: 233  
Wisconsin Certification #: 998093910  
Wyoming UST Certification #: via A2LA 2926.01  
A2LA-ISO 17025 Certification #: 1461.01  
A2LA-ISO 17025 Certification #: 1461.02  
AIHA-LAP/LLC EMLAP Certification #:100789

### Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006  
9800 Kincey Ave. Ste 100, Huntersville, NC 28078  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12  
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001  
South Carolina Drinking Water Cert. #: 99006003  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Louisiana DoH Drinking Water #: LA029  
Virginia/VELAP Certification #: 460221

### Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
North Carolina Drinking Water Certification #: 37712  
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: TCH-009

Pace Project No.: 92623351

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92623351001	MW-1A	Water	08/31/22 16:30	09/01/22 09:01
92623351002	MW-7	Water	08/31/22 20:05	09/01/22 09:01
92623351003	MW-8	Water	08/31/22 18:00	09/01/22 09:01
92623351004	GW-DUP	Water	08/31/22 20:05	09/01/22 09:01
92623351005	Trip Blank-2	Water	08/31/22 00:00	09/01/22 09:01

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: TCH-009  
Pace Project No.: 92623351

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92623351001	MW-1A	EPA 6010D	DEC	5	PASI-A
		EPA 6020B	CRW	13	PASI-A
		EPA 7470A	NMP	1	PASI-A
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
		EPA 7199	ELN	1	PAN
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 9056A	CDC	4	PASI-A
		92623351002	MW-7	EPA 6010D	DEC
EPA 6020B	CRW			13	PASI-A
EPA 7470A	NMP			1	PASI-A
EPA 8270E	PKS			74	PASI-C
EPA 8260D	CL			63	PASI-C
EPA 8260D Mod.	LMB			3	PASI-C
EPA 7199	ELN			1	PAN
SM 2540C-2015	MAB2			1	PASI-A
EPA 9056A	CDC			4	PASI-A
92623351003	MW-8			EPA 6010D	DEC
		EPA 6020B	CRW	13	PASI-A
		EPA 7470A	NMP	1	PASI-A
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
		EPA 7199	ELN	1	PAN
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 9056A	CDC	4	PASI-A
		92623351004	GW-DUP	EPA 6010D	DEC
EPA 6020B	CRW			13	PASI-A
EPA 7470A	NMP			1	PASI-A
EPA 8270E	PKS			74	PASI-C
EPA 8260D	CL			63	PASI-C
EPA 8260D Mod.	LMB			3	PASI-C
EPA 7199	ELN			1	PAN
SM 2540C-2015	MAB2			1	PASI-A
EPA 9056A	CDC			4	PASI-A
92623351005	Trip Blank-2			EPA 8260D	CL

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: TCH-009  
Pace Project No.: 92623351

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260D Mod.	LMB	3	PASI-C

PAN = Pace National - Mt. Juliet  
PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

Sample: MW-1A      Lab ID: 92623351001      Collected: 08/31/22 16:30      Received: 09/01/22 09:01      Matrix: Water									
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Barium	852	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:19	7440-39-3	
Boron	332	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 22:19	7440-42-8	
Manganese	1380	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 22:19	7439-96-5	
Strontium	2500	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:19	7440-24-6	
Zinc	ND	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 22:19	7440-66-6	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Antimony	ND	ug/L	1.0	0.20	1	09/08/22 09:50	09/09/22 14:00	7440-36-0	
Arsenic	37.0	ug/L	1.0	0.087	1	09/08/22 09:50	09/09/22 14:00	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/08/22 09:50	09/09/22 14:00	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/08/22 09:50	09/09/22 14:00	7440-43-9	
Chromium	0.97J	ug/L	1.0	0.50	1	09/08/22 09:50	09/09/22 14:00	7440-47-3	
Cobalt	0.40J	ug/L	1.0	0.050	1	09/08/22 09:50	09/09/22 14:00	7440-48-4	
Copper	ND	ug/L	2.0	1.1	1	09/08/22 09:50	09/09/22 14:00	7440-50-8	
Lithium	110	ug/L	2.5	0.50	1	09/08/22 09:50	09/09/22 14:00	7439-93-2	M1
Molybdenum	0.79J	ug/L	1.0	0.13	1	09/08/22 09:50	09/09/22 14:00	7439-98-7	
Nickel	ND	ug/L	1.0	0.42	1	09/08/22 09:50	09/09/22 14:00	7440-02-0	
Selenium	0.12J	ug/L	2.0	0.072	1	09/08/22 09:50	09/11/22 19:09	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/08/22 09:50	09/09/22 14:00	7440-28-0	
Vanadium	1.7	ug/L	1.0	0.25	1	09/08/22 09:50	09/09/22 14:00	7440-62-2	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Asheville									
Mercury	0.14J	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:38	7439-97-6	
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:10	83-32-9	
Acenaphthylene	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:10	208-96-8	
Aniline	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:10	62-53-3	
Anthracene	ND	ug/L	8.3	1.9	1	09/06/22 16:00	09/07/22 15:10	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.3	2.2	1	09/06/22 16:00	09/07/22 15:10	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.3	2.3	1	09/06/22 16:00	09/07/22 15:10	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.3	2.2	1	09/06/22 16:00	09/07/22 15:10	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.3	2.4	1	09/06/22 16:00	09/07/22 15:10	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.3	2.3	1	09/06/22 16:00	09/07/22 15:10	207-08-9	
Benzoic Acid	ND	ug/L	41.7	18.3	1	09/06/22 16:00	09/07/22 15:10	65-85-0	
Benzyl alcohol	ND	ug/L	16.7	2.4	1	09/06/22 16:00	09/07/22 15:10	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	8.3	1.5	1	09/06/22 16:00	09/07/22 15:10	101-55-3	
Butylbenzylphthalate	ND	ug/L	8.3	2.6	1	09/06/22 16:00	09/07/22 15:10	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	8.3	2.8	1	09/06/22 16:00	09/07/22 15:10	59-50-7	
4-Chloroaniline	ND	ug/L	16.7	3.0	1	09/06/22 16:00	09/07/22 15:10	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	8.3	1.5	1	09/06/22 16:00	09/07/22 15:10	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:10	111-44-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

**Sample: MW-1A**      **Lab ID: 92623351001**      Collected: 08/31/22 16:30      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b> Analytical Method: EPA 8270E      Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
2-Chloronaphthalene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:10	91-58-7	
2-Chlorophenol	ND	ug/L	8.3	1.0	1	09/06/22 16:00	09/07/22 15:10	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:10	7005-72-3	
Chrysene	ND	ug/L	8.3	2.3	1	09/06/22 16:00	09/07/22 15:10	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.3	2.5	1	09/06/22 16:00	09/07/22 15:10	53-70-3	
Dibenzofuran	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:10	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	8.3	1.5	1	09/06/22 16:00	09/07/22 15:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	8.3	1.3	1	09/06/22 16:00	09/07/22 15:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:10	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	16.7	6.8	1	09/06/22 16:00	09/07/22 15:10	91-94-1	
2,4-Dichlorophenol	ND	ug/L	8.3	1.2	1	09/06/22 16:00	09/07/22 15:10	120-83-2	
Diethylphthalate	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:10	84-66-2	
2,4-Dimethylphenol	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:10	105-67-9	
Dimethylphthalate	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:10	131-11-3	
Di-n-butylphthalate	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:10	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	16.7	6.5	1	09/06/22 16:00	09/07/22 15:10	534-52-1	
2,4-Dinitrophenol	ND	ug/L	41.7	21.7	1	09/06/22 16:00	09/07/22 15:10	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:10	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:10	606-20-2	
Di-n-octylphthalate	ND	ug/L	8.3	3.3	1	09/06/22 16:00	09/07/22 15:10	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	5.0	3.1	1	09/06/22 16:00	09/07/22 15:10	117-81-7	
Fluoranthene	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:10	206-44-0	
Fluorene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:10	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	8.3	1.5	1	09/06/22 16:00	09/07/22 15:10	87-68-3	
Hexachlorobenzene	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:10	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	8.3	1.3	1	09/06/22 16:00	09/07/22 15:10	77-47-4	
Hexachloroethane	ND	ug/L	8.3	1.2	1	09/06/22 16:00	09/07/22 15:10	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.3	2.4	1	09/06/22 16:00	09/07/22 15:10	193-39-5	
Isophorone	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:10	78-59-1	
1-Methylnaphthalene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:10	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:10	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:10	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	8.3	1.0	1	09/06/22 16:00	09/07/22 15:10	15831-10-4	
Naphthalene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:10	91-20-3	
2-Nitroaniline	ND	ug/L	16.7	2.5	1	09/06/22 16:00	09/07/22 15:10	88-74-4	
3-Nitroaniline	ND	ug/L	16.7	3.1	1	09/06/22 16:00	09/07/22 15:10	99-09-2	
4-Nitroaniline	ND	ug/L	16.7	4.2	1	09/06/22 16:00	09/07/22 15:10	100-01-6	
Nitrobenzene	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:10	98-95-3	
2-Nitrophenol	ND	ug/L	8.3	1.2	1	09/06/22 16:00	09/07/22 15:10	88-75-5	
4-Nitrophenol	ND	ug/L	41.7	5.5	1	09/06/22 16:00	09/07/22 15:10	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:10	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	8.3	1.1	1	09/06/22 16:00	09/07/22 15:10	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	8.3	2.5	1	09/06/22 16:00	09/07/22 15:10	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	8.3	0.96	1	09/06/22 16:00	09/07/22 15:10	108-60-1	
Pentachlorophenol	ND	ug/L	16.7	3.1	1	09/06/22 16:00	09/07/22 15:10	87-86-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

**Sample: MW-1A**      **Lab ID: 92623351001**      Collected: 08/31/22 16:30      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:10	85-01-8	
Phenol	ND	ug/L	8.3	1.1	1	09/06/22 16:00	09/07/22 15:10	108-95-2	
Pyrene	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:10	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:10	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	8.3	1.2	1	09/06/22 16:00	09/07/22 15:10	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	8.3	1.3	1	09/06/22 16:00	09/07/22 15:10	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	65	%	10-144		1	09/06/22 16:00	09/07/22 15:10	4165-60-0	
2-Fluorobiphenyl (S)	53	%	10-130		1	09/06/22 16:00	09/07/22 15:10	321-60-8	
Terphenyl-d14 (S)	104	%	34-163		1	09/06/22 16:00	09/07/22 15:10	1718-51-0	
Phenol-d6 (S)	44	%	10-130		1	09/06/22 16:00	09/07/22 15:10	13127-88-3	
2-Fluorophenol (S)	44	%	10-130		1	09/06/22 16:00	09/07/22 15:10	367-12-4	
2,4,6-Tribromophenol (S)	66	%	10-144		1	09/06/22 16:00	09/07/22 15:10	118-79-6	
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/07/22 18:13	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/07/22 18:13	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/07/22 18:13	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/07/22 18:13	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/07/22 18:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/07/22 18:13	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/07/22 18:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/07/22 18:13	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/07/22 18:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/07/22 18:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/07/22 18:13	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/07/22 18:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/07/22 18:13	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 18:13	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 18:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/07/22 18:13	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/07/22 18:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/07/22 18:13	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/07/22 18:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 18:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 18:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/07/22 18:13	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/07/22 18:13	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/07/22 18:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 18:13	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/07/22 18:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 18:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/07/22 18:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/07/22 18:13	78-87-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

**Sample: MW-1A**      **Lab ID: 92623351001**      Collected: 08/31/22 16:30      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/07/22 18:13	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/07/22 18:13	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/07/22 18:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 18:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 18:13	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/07/22 18:13	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/07/22 18:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/07/22 18:13	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/07/22 18:13	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/07/22 18:13	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/07/22 18:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/07/22 18:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/07/22 18:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/07/22 18:13	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/07/22 18:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/07/22 18:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/07/22 18:13	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/07/22 18:13	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/07/22 18:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/07/22 18:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/07/22 18:13	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/07/22 18:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 18:13	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 18:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/07/22 18:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/07/22 18:13	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/07/22 18:13	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/07/22 18:13	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/07/22 18:13	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/07/22 18:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/07/22 18:13	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	99	%	70-130		1		09/07/22 18:13	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		09/07/22 18:13	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		09/07/22 18:13	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/02/22 19:10	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		09/02/22 19:10	17060-07-0	
Toluene-d8 (S)	88	%	70-130		1		09/02/22 19:10	2037-26-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

Sample: MW-1A		Lab ID: 92623351001		Collected: 08/31/22 16:30	Received: 09/01/22 09:01	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	ug/L	0.500	0.150	1	09/04/22 14:56	09/04/22 14:56	18540-29-9		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	<b>774</b>	mg/L	50.0	50.0	1		09/04/22 12:11			
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville								
Chloride	<b>74.0</b>	mg/L	1.0	0.60	1		09/02/22 12:25	16887-00-6		
Fluoride	<b>0.21</b>	mg/L	0.10	0.050	1		09/02/22 12:25	16984-48-8		
Nitrate as N	ND	mg/L	0.10	0.060	1		09/02/22 12:25	14797-55-8		
Sulfate	<b>55.0</b>	mg/L	1.0	0.50	1		09/02/22 12:25	14808-79-8		

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## ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623351

Sample: MW-7		Lab ID: 92623351002		Collected: 08/31/22 20:05		Received: 09/01/22 09:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Barium	4.3J	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:22	7440-39-3	
Boron	ND	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 22:22	7440-42-8	
Manganese	12.8	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 22:22	7439-96-5	
Strontium	52.9	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:22	7440-24-6	
Zinc	11.4	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 22:22	7440-66-6	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Antimony	ND	ug/L	1.0	0.20	1	09/08/22 09:50	09/09/22 14:20	7440-36-0	
Arsenic	0.18J	ug/L	1.0	0.087	1	09/08/22 09:50	09/09/22 14:20	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/08/22 09:50	09/09/22 14:20	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/08/22 09:50	09/09/22 14:20	7440-43-9	
Chromium	0.70J	ug/L	1.0	0.50	1	09/08/22 09:50	09/09/22 14:20	7440-47-3	
Cobalt	0.073J	ug/L	1.0	0.050	1	09/08/22 09:50	09/09/22 14:20	7440-48-4	
Copper	ND	ug/L	2.0	1.1	1	09/08/22 09:50	09/09/22 14:20	7440-50-8	
Lithium	2.1J	ug/L	2.5	0.50	1	09/08/22 09:50	09/09/22 14:20	7439-93-2	
Molybdenum	0.18J	ug/L	1.0	0.13	1	09/08/22 09:50	09/09/22 14:20	7439-98-7	
Nickel	ND	ug/L	1.0	0.42	1	09/08/22 09:50	09/09/22 14:20	7440-02-0	
Selenium	0.15J	ug/L	2.0	0.072	1	09/08/22 09:50	09/11/22 19:47	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/08/22 09:50	09/09/22 14:20	7440-28-0	
Vanadium	0.69J	ug/L	1.0	0.25	1	09/08/22 09:50	09/09/22 14:20	7440-62-2	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Asheville									
Mercury	ND	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:40	7439-97-6	
<b>8270E RVE</b>									
Analytical Method: EPA 8270E Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:36	83-32-9	
Acenaphthylene	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:36	208-96-8	
Aniline	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:36	62-53-3	
Anthracene	ND	ug/L	8.3	1.9	1	09/06/22 16:00	09/07/22 15:36	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.3	2.2	1	09/06/22 16:00	09/07/22 15:36	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.3	2.3	1	09/06/22 16:00	09/07/22 15:36	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.3	2.2	1	09/06/22 16:00	09/07/22 15:36	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.3	2.4	1	09/06/22 16:00	09/07/22 15:36	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.3	2.3	1	09/06/22 16:00	09/07/22 15:36	207-08-9	
Benzoic Acid	ND	ug/L	41.7	18.3	1	09/06/22 16:00	09/07/22 15:36	65-85-0	
Benzyl alcohol	ND	ug/L	16.7	2.4	1	09/06/22 16:00	09/07/22 15:36	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	8.3	1.5	1	09/06/22 16:00	09/07/22 15:36	101-55-3	
Butylbenzylphthalate	ND	ug/L	8.3	2.6	1	09/06/22 16:00	09/07/22 15:36	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	8.3	2.8	1	09/06/22 16:00	09/07/22 15:36	59-50-7	
4-Chloroaniline	ND	ug/L	16.7	3.0	1	09/06/22 16:00	09/07/22 15:36	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	8.3	1.5	1	09/06/22 16:00	09/07/22 15:36	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:36	111-44-4	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

Sample: MW-7 Lab ID: 92623351002 Collected: 08/31/22 20:05 Received: 09/01/22 09:01 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
2-Chloronaphthalene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:36	91-58-7	
2-Chlorophenol	ND	ug/L	8.3	1.0	1	09/06/22 16:00	09/07/22 15:36	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:36	7005-72-3	
Chrysene	ND	ug/L	8.3	2.3	1	09/06/22 16:00	09/07/22 15:36	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.3	2.5	1	09/06/22 16:00	09/07/22 15:36	53-70-3	
Dibenzofuran	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:36	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	8.3	1.5	1	09/06/22 16:00	09/07/22 15:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	8.3	1.3	1	09/06/22 16:00	09/07/22 15:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:36	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	16.7	6.8	1	09/06/22 16:00	09/07/22 15:36	91-94-1	
2,4-Dichlorophenol	ND	ug/L	8.3	1.2	1	09/06/22 16:00	09/07/22 15:36	120-83-2	
Diethylphthalate	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:36	84-66-2	
2,4-Dimethylphenol	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:36	105-67-9	
Dimethylphthalate	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:36	131-11-3	
Di-n-butylphthalate	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:36	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	16.7	6.5	1	09/06/22 16:00	09/07/22 15:36	534-52-1	
2,4-Dinitrophenol	ND	ug/L	41.7	21.7	1	09/06/22 16:00	09/07/22 15:36	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:36	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:36	606-20-2	
Di-n-octylphthalate	ND	ug/L	8.3	3.3	1	09/06/22 16:00	09/07/22 15:36	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	5.0	3.1	1	09/06/22 16:00	09/07/22 15:36	117-81-7	
Fluoranthene	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:36	206-44-0	
Fluorene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:36	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	8.3	1.5	1	09/06/22 16:00	09/07/22 15:36	87-68-3	
Hexachlorobenzene	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:36	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	8.3	1.3	1	09/06/22 16:00	09/07/22 15:36	77-47-4	
Hexachloroethane	ND	ug/L	8.3	1.2	1	09/06/22 16:00	09/07/22 15:36	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.3	2.4	1	09/06/22 16:00	09/07/22 15:36	193-39-5	
Isophorone	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:36	78-59-1	
1-Methylnaphthalene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:36	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:36	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:36	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	8.3	1.0	1	09/06/22 16:00	09/07/22 15:36	15831-10-4	
Naphthalene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:36	91-20-3	
2-Nitroaniline	ND	ug/L	16.7	2.5	1	09/06/22 16:00	09/07/22 15:36	88-74-4	
3-Nitroaniline	ND	ug/L	16.7	3.1	1	09/06/22 16:00	09/07/22 15:36	99-09-2	
4-Nitroaniline	ND	ug/L	16.7	4.2	1	09/06/22 16:00	09/07/22 15:36	100-01-6	
Nitrobenzene	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:36	98-95-3	
2-Nitrophenol	ND	ug/L	8.3	1.2	1	09/06/22 16:00	09/07/22 15:36	88-75-5	
4-Nitrophenol	ND	ug/L	41.7	5.5	1	09/06/22 16:00	09/07/22 15:36	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	8.3	1.6	1	09/06/22 16:00	09/07/22 15:36	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	8.3	1.1	1	09/06/22 16:00	09/07/22 15:36	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	8.3	2.5	1	09/06/22 16:00	09/07/22 15:36	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	8.3	0.96	1	09/06/22 16:00	09/07/22 15:36	108-60-1	
Pentachlorophenol	ND	ug/L	16.7	3.1	1	09/06/22 16:00	09/07/22 15:36	87-86-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623351

**Sample: MW-7**      **Lab ID: 92623351002**      Collected: 08/31/22 20:05      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	8.3	1.7	1	09/06/22 16:00	09/07/22 15:36	85-01-8	
Phenol	ND	ug/L	8.3	1.1	1	09/06/22 16:00	09/07/22 15:36	108-95-2	
Pyrene	ND	ug/L	8.3	1.8	1	09/06/22 16:00	09/07/22 15:36	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	8.3	1.4	1	09/06/22 16:00	09/07/22 15:36	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	8.3	1.2	1	09/06/22 16:00	09/07/22 15:36	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	8.3	1.3	1	09/06/22 16:00	09/07/22 15:36	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	56	%	10-144		1	09/06/22 16:00	09/07/22 15:36	4165-60-0	
2-Fluorobiphenyl (S)	48	%	10-130		1	09/06/22 16:00	09/07/22 15:36	321-60-8	
Terphenyl-d14 (S)	96	%	34-163		1	09/06/22 16:00	09/07/22 15:36	1718-51-0	
Phenol-d6 (S)	43	%	10-130		1	09/06/22 16:00	09/07/22 15:36	13127-88-3	
2-Fluorophenol (S)	50	%	10-130		1	09/06/22 16:00	09/07/22 15:36	367-12-4	
2,4,6-Tribromophenol (S)	74	%	10-144		1	09/06/22 16:00	09/07/22 15:36	118-79-6	
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/07/22 18:31	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/07/22 18:31	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/07/22 18:31	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/07/22 18:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/07/22 18:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/07/22 18:31	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/07/22 18:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/07/22 18:31	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/07/22 18:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/07/22 18:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/07/22 18:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/07/22 18:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/07/22 18:31	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 18:31	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 18:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/07/22 18:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/07/22 18:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/07/22 18:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/07/22 18:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 18:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 18:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/07/22 18:31	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/07/22 18:31	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/07/22 18:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 18:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/07/22 18:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 18:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/07/22 18:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/07/22 18:31	78-87-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

Sample: MW-7 Lab ID: 92623351002 Collected: 08/31/22 20:05 Received: 09/01/22 09:01 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/07/22 18:31	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/07/22 18:31	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/07/22 18:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 18:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 18:31	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/07/22 18:31	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/07/22 18:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/07/22 18:31	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/07/22 18:31	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/07/22 18:31	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/07/22 18:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/07/22 18:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/07/22 18:31	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/07/22 18:31	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/07/22 18:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/07/22 18:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/07/22 18:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/07/22 18:31	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/07/22 18:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/07/22 18:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/07/22 18:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/07/22 18:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 18:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 18:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/07/22 18:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/07/22 18:31	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/07/22 18:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/07/22 18:31	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/07/22 18:31	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/07/22 18:31	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/07/22 18:31	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	100	%	70-130		1		09/07/22 18:31	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		09/07/22 18:31	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		09/07/22 18:31	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/02/22 19:29	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		09/02/22 19:29	17060-07-0	
Toluene-d8 (S)	88	%	70-130		1		09/02/22 19:29	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

Sample: MW-7		Lab ID: 92623351002		Collected: 08/31/22 20:05	Received: 09/01/22 09:01	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	ug/L	0.500	0.150	1	09/04/22 15:04	09/04/22 15:04	18540-29-9		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	<b>117</b>	mg/L	25.0	25.0	1		09/04/22 12:11			
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville								
Chloride	<b>4.0</b>	mg/L	1.0	0.60	1		09/02/22 12:54	16887-00-6		
Fluoride	<b>0.14</b>	mg/L	0.10	0.050	1		09/02/22 12:54	16984-48-8		
Nitrate as N	<b>0.087J</b>	mg/L	0.10	0.060	1		09/02/22 12:54	14797-55-8		
Sulfate	<b>6.0</b>	mg/L	1.0	0.50	1		09/02/22 12:54	14808-79-8		

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## ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623351

Sample: MW-8		Lab ID: 92623351003		Collected: 08/31/22 18:00		Received: 09/01/22 09:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Barium	315	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:26	7440-39-3	
Boron	51.0	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 22:26	7440-42-8	
Manganese	3610	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 22:26	7439-96-5	
Strontium	852	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:26	7440-24-6	
Zinc	ND	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 22:26	7440-66-6	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Antimony	ND	ug/L	1.0	0.20	1	09/08/22 09:50	09/09/22 14:23	7440-36-0	
Arsenic	5.1	ug/L	1.0	0.087	1	09/08/22 09:50	09/09/22 14:23	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/08/22 09:50	09/09/22 14:23	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/08/22 09:50	09/09/22 14:23	7440-43-9	
Chromium	0.51J	ug/L	1.0	0.50	1	09/08/22 09:50	09/09/22 14:23	7440-47-3	
Cobalt	2.7	ug/L	1.0	0.050	1	09/08/22 09:50	09/09/22 14:23	7440-48-4	
Copper	ND	ug/L	2.0	1.1	1	09/08/22 09:50	09/09/22 14:23	7440-50-8	
Lithium	2.8	ug/L	2.5	0.50	1	09/08/22 09:50	09/09/22 14:23	7439-93-2	
Molybdenum	0.90J	ug/L	1.0	0.13	1	09/08/22 09:50	09/09/22 14:23	7439-98-7	
Nickel	0.84J	ug/L	1.0	0.42	1	09/08/22 09:50	09/09/22 14:23	7440-02-0	
Selenium	ND	ug/L	2.0	0.072	1	09/08/22 09:50	09/11/22 19:51	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/08/22 09:50	09/09/22 14:23	7440-28-0	
Vanadium	0.29J	ug/L	1.0	0.25	1	09/08/22 09:50	09/09/22 14:23	7440-62-2	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Asheville									
Mercury	ND	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:43	7439-97-6	
<b>8270E RVE</b>									
Analytical Method: EPA 8270E Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 16:02	83-32-9	
Acenaphthylene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 16:02	208-96-8	
Aniline	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 16:02	62-53-3	
Anthracene	ND	ug/L	9.1	2.1	1	09/06/22 16:00	09/07/22 16:02	120-12-7	
Benzo(a)anthracene	ND	ug/L	9.1	2.4	1	09/06/22 16:00	09/07/22 16:02	56-55-3	
Benzo(a)pyrene	ND	ug/L	9.1	2.5	1	09/06/22 16:00	09/07/22 16:02	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	9.1	2.4	1	09/06/22 16:00	09/07/22 16:02	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	9.1	2.6	1	09/06/22 16:00	09/07/22 16:02	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	9.1	2.5	1	09/06/22 16:00	09/07/22 16:02	207-08-9	
Benzoic Acid	ND	ug/L	45.5	20.0	1	09/06/22 16:00	09/07/22 16:02	65-85-0	
Benzyl alcohol	ND	ug/L	18.2	2.6	1	09/06/22 16:00	09/07/22 16:02	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 16:02	101-55-3	
Butylbenzylphthalate	ND	ug/L	9.1	2.9	1	09/06/22 16:00	09/07/22 16:02	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	9.1	3.0	1	09/06/22 16:00	09/07/22 16:02	59-50-7	
4-Chloroaniline	ND	ug/L	18.2	3.3	1	09/06/22 16:00	09/07/22 16:02	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 16:02	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 16:02	111-44-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

**Sample: MW-8**      **Lab ID: 92623351003**      Collected: 08/31/22 18:00      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b> Analytical Method: EPA 8270E      Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
2-Chloronaphthalene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 16:02	91-58-7	
2-Chlorophenol	ND	ug/L	9.1	1.1	1	09/06/22 16:00	09/07/22 16:02	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 16:02	7005-72-3	
Chrysene	ND	ug/L	9.1	2.5	1	09/06/22 16:00	09/07/22 16:02	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	9.1	2.7	1	09/06/22 16:00	09/07/22 16:02	53-70-3	
Dibenzofuran	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 16:02	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 16:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 16:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 16:02	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	18.2	7.4	1	09/06/22 16:00	09/07/22 16:02	91-94-1	
2,4-Dichlorophenol	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 16:02	120-83-2	
Diethylphthalate	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 16:02	84-66-2	
2,4-Dimethylphenol	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 16:02	105-67-9	
Dimethylphthalate	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 16:02	131-11-3	
Di-n-butylphthalate	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 16:02	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	18.2	7.1	1	09/06/22 16:00	09/07/22 16:02	534-52-1	
2,4-Dinitrophenol	ND	ug/L	45.5	23.6	1	09/06/22 16:00	09/07/22 16:02	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 16:02	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 16:02	606-20-2	
Di-n-octylphthalate	ND	ug/L	9.1	3.6	1	09/06/22 16:00	09/07/22 16:02	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	5.5	3.4	1	09/06/22 16:00	09/07/22 16:02	117-81-7	
Fluoranthene	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 16:02	206-44-0	
Fluorene	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 16:02	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 16:02	87-68-3	
Hexachlorobenzene	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 16:02	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	9.1	1.4	1	09/06/22 16:00	09/07/22 16:02	77-47-4	
Hexachloroethane	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 16:02	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	9.1	2.6	1	09/06/22 16:00	09/07/22 16:02	193-39-5	
Isophorone	ND	ug/L	9.1	1.5	1	09/06/22 16:00	09/07/22 16:02	78-59-1	
1-Methylnaphthalene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 16:02	90-12-0	
2-Methylnaphthalene	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 16:02	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 16:02	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	9.1	1.1	1	09/06/22 16:00	09/07/22 16:02	15831-10-4	
Naphthalene	ND	ug/L	9.1	1.9	1	09/06/22 16:00	09/07/22 16:02	91-20-3	
2-Nitroaniline	ND	ug/L	18.2	2.7	1	09/06/22 16:00	09/07/22 16:02	88-74-4	
3-Nitroaniline	ND	ug/L	18.2	3.4	1	09/06/22 16:00	09/07/22 16:02	99-09-2	
4-Nitroaniline	ND	ug/L	18.2	4.6	1	09/06/22 16:00	09/07/22 16:02	100-01-6	
Nitrobenzene	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 16:02	98-95-3	
2-Nitrophenol	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 16:02	88-75-5	
4-Nitrophenol	ND	ug/L	45.5	6.0	1	09/06/22 16:00	09/07/22 16:02	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	9.1	1.7	1	09/06/22 16:00	09/07/22 16:02	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	9.1	1.2	1	09/06/22 16:00	09/07/22 16:02	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	9.1	2.7	1	09/06/22 16:00	09/07/22 16:02	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	9.1	1.0	1	09/06/22 16:00	09/07/22 16:02	108-60-1	
Pentachlorophenol	ND	ug/L	18.2	3.4	1	09/06/22 16:00	09/07/22 16:02	87-86-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

**Sample: MW-8**      **Lab ID: 92623351003**      Collected: 08/31/22 18:00      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	9.1	1.8	1	09/06/22 16:00	09/07/22 16:02	85-01-8	
Phenol	ND	ug/L	9.1	1.2	1	09/06/22 16:00	09/07/22 16:02	108-95-2	
Pyrene	ND	ug/L	9.1	2.0	1	09/06/22 16:00	09/07/22 16:02	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	9.1	1.6	1	09/06/22 16:00	09/07/22 16:02	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	9.1	1.3	1	09/06/22 16:00	09/07/22 16:02	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	9.1	1.4	1	09/06/22 16:00	09/07/22 16:02	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	74	%	10-144		1	09/06/22 16:00	09/07/22 16:02	4165-60-0	
2-Fluorobiphenyl (S)	54	%	10-130		1	09/06/22 16:00	09/07/22 16:02	321-60-8	
Terphenyl-d14 (S)	83	%	34-163		1	09/06/22 16:00	09/07/22 16:02	1718-51-0	
Phenol-d6 (S)	46	%	10-130		1	09/06/22 16:00	09/07/22 16:02	13127-88-3	
2-Fluorophenol (S)	44	%	10-130		1	09/06/22 16:00	09/07/22 16:02	367-12-4	
2,4,6-Tribromophenol (S)	60	%	10-144		1	09/06/22 16:00	09/07/22 16:02	118-79-6	
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/07/22 18:49	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/07/22 18:49	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/07/22 18:49	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/07/22 18:49	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/07/22 18:49	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/07/22 18:49	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/07/22 18:49	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/07/22 18:49	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/07/22 18:49	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/07/22 18:49	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/07/22 18:49	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/07/22 18:49	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/07/22 18:49	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 18:49	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 18:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/07/22 18:49	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/07/22 18:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/07/22 18:49	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/07/22 18:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 18:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 18:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/07/22 18:49	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/07/22 18:49	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/07/22 18:49	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 18:49	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/07/22 18:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 18:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/07/22 18:49	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/07/22 18:49	78-87-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

**Sample: MW-8**      **Lab ID: 92623351003**      Collected: 08/31/22 18:00      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/07/22 18:49	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/07/22 18:49	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/07/22 18:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 18:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 18:49	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/07/22 18:49	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/07/22 18:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/07/22 18:49	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/07/22 18:49	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/07/22 18:49	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/07/22 18:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/07/22 18:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/07/22 18:49	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/07/22 18:49	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/07/22 18:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/07/22 18:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/07/22 18:49	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/07/22 18:49	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/07/22 18:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/07/22 18:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/07/22 18:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/07/22 18:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 18:49	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 18:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/07/22 18:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/07/22 18:49	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/07/22 18:49	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/07/22 18:49	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/07/22 18:49	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/07/22 18:49	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/07/22 18:49	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	99	%	70-130		1		09/07/22 18:49	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		09/07/22 18:49	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		09/07/22 18:49	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/02/22 19:48	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		09/02/22 19:48	17060-07-0	
Toluene-d8 (S)	87	%	70-130		1		09/02/22 19:48	2037-26-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

Sample: MW-8		Lab ID: 92623351003		Collected: 08/31/22 18:00		Received: 09/01/22 09:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet							
Chromium, Hexavalent	ND	ug/L	0.500	0.150	1	09/04/22 15:11	09/04/22 15:11	18540-29-9	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>390</b>	mg/L	25.0	25.0	1		09/04/22 12:11		
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	<b>35.4</b>	mg/L	1.0	0.60	1		09/02/22 12:40	16887-00-6	
Fluoride	<b>0.14</b>	mg/L	0.10	0.050	1		09/02/22 12:40	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.060	1		09/02/22 12:40	14797-55-8	
Sulfate	<b>15.4</b>	mg/L	1.0	0.50	1		09/02/22 12:40	14808-79-8	

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### ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623351

Sample: <b>GW-DUP</b>		Lab ID: <b>92623351004</b>		Collected: 08/31/22 20:05	Received: 09/01/22 09:01	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Barium	<b>318</b>	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:29	7440-39-3	
Boron	<b>51.4</b>	ug/L	50.0	32.4	1	09/03/22 10:41	09/19/22 22:29	7440-42-8	
Manganese	<b>3720</b>	ug/L	5.0	3.4	1	09/03/22 10:41	09/19/22 22:29	7439-96-5	
Strontium	<b>860</b>	ug/L	5.0	3.5	1	09/03/22 10:41	09/19/22 22:29	7440-24-6	
Zinc	ND	ug/L	10.0	9.5	1	09/03/22 10:41	09/19/22 22:29	7440-66-6	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Antimony	ND	ug/L	1.0	0.20	1	09/08/22 09:50	09/09/22 14:27	7440-36-0	
Arsenic	<b>5.2</b>	ug/L	1.0	0.087	1	09/08/22 09:50	09/09/22 14:27	7440-38-2	
Beryllium	ND	ug/L	0.10	0.050	1	09/08/22 09:50	09/09/22 14:27	7440-41-7	
Cadmium	ND	ug/L	0.20	0.060	1	09/08/22 09:50	09/09/22 14:27	7440-43-9	
Chromium	<b>0.52J</b>	ug/L	1.0	0.50	1	09/08/22 09:50	09/09/22 14:27	7440-47-3	
Cobalt	<b>2.7</b>	ug/L	1.0	0.050	1	09/08/22 09:50	09/09/22 14:27	7440-48-4	
Copper	ND	ug/L	2.0	1.1	1	09/08/22 09:50	09/09/22 14:27	7440-50-8	
Lithium	<b>2.8</b>	ug/L	2.5	0.50	1	09/08/22 09:50	09/09/22 14:27	7439-93-2	
Molybdenum	<b>0.82J</b>	ug/L	1.0	0.13	1	09/08/22 09:50	09/09/22 14:27	7439-98-7	
Nickel	<b>0.82J</b>	ug/L	1.0	0.42	1	09/08/22 09:50	09/09/22 14:27	7440-02-0	
Selenium	ND	ug/L	2.0	0.072	1	09/08/22 09:50	09/11/22 19:55	7782-49-2	
Thallium	ND	ug/L	0.47	0.050	1	09/08/22 09:50	09/09/22 14:27	7440-28-0	
Vanadium	<b>0.31J</b>	ug/L	1.0	0.25	1	09/08/22 09:50	09/09/22 14:27	7440-62-2	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville							
Mercury	ND	ug/L	0.20	0.12	1	09/08/22 10:55	09/09/22 12:46	7439-97-6	
<b>8270E RVE</b>		Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte							
Acenaphthene	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 16:28	83-32-9	
Acenaphthylene	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 16:28	208-96-8	
Aniline	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 16:28	62-53-3	
Anthracene	ND	ug/L	10.0	2.3	1	09/06/22 16:00	09/07/22 16:28	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	2.7	1	09/06/22 16:00	09/07/22 16:28	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	2.8	1	09/06/22 16:00	09/07/22 16:28	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	2.6	1	09/06/22 16:00	09/07/22 16:28	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	2.8	1	09/06/22 16:00	09/07/22 16:28	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	2.7	1	09/06/22 16:00	09/07/22 16:28	207-08-9	
Benzoic Acid	ND	ug/L	50.0	22.0	1	09/06/22 16:00	09/07/22 16:28	65-85-0	
Benzyl alcohol	ND	ug/L	20.0	2.9	1	09/06/22 16:00	09/07/22 16:28	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.8	1	09/06/22 16:00	09/07/22 16:28	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	3.1	1	09/06/22 16:00	09/07/22 16:28	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	10.0	3.3	1	09/06/22 16:00	09/07/22 16:28	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	3.6	1	09/06/22 16:00	09/07/22 16:28	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.8	1	09/06/22 16:00	09/07/22 16:28	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 16:28	111-44-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

**Sample: GW-DUP**      **Lab ID: 92623351004**      Collected: 08/31/22 20:05      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b> Analytical Method: EPA 8270E      Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
2-Chloronaphthalene	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 16:28	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.2	1	09/06/22 16:00	09/07/22 16:28	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 16:28	7005-72-3	
Chrysene	ND	ug/L	10.0	2.8	1	09/06/22 16:00	09/07/22 16:28	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	3.0	1	09/06/22 16:00	09/07/22 16:28	53-70-3	
Dibenzofuran	ND	ug/L	10.0	2.1	1	09/06/22 16:00	09/07/22 16:28	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1.8	1	09/06/22 16:00	09/07/22 16:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 16:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 16:28	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	8.1	1	09/06/22 16:00	09/07/22 16:28	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 16:28	120-83-2	
Diethylphthalate	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 16:28	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 16:28	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	2.1	1	09/06/22 16:00	09/07/22 16:28	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	2.2	1	09/06/22 16:00	09/07/22 16:28	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	7.8	1	09/06/22 16:00	09/07/22 16:28	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	26.0	1	09/06/22 16:00	09/07/22 16:28	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 16:28	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 16:28	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	3.9	1	09/06/22 16:00	09/07/22 16:28	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	3.7	1	09/06/22 16:00	09/07/22 16:28	117-81-7	
Fluoranthene	ND	ug/L	10.0	2.2	1	09/06/22 16:00	09/07/22 16:28	206-44-0	
Fluorene	ND	ug/L	10.0	2.1	1	09/06/22 16:00	09/07/22 16:28	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.8	1	09/06/22 16:00	09/07/22 16:28	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	2.2	1	09/06/22 16:00	09/07/22 16:28	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 16:28	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 16:28	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	2.9	1	09/06/22 16:00	09/07/22 16:28	193-39-5	
Isophorone	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 16:28	78-59-1	
1-Methylnaphthalene	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 16:28	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 16:28	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 16:28	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1.2	1	09/06/22 16:00	09/07/22 16:28	15831-10-4	
Naphthalene	ND	ug/L	10.0	2.1	1	09/06/22 16:00	09/07/22 16:28	91-20-3	
2-Nitroaniline	ND	ug/L	20.0	3.0	1	09/06/22 16:00	09/07/22 16:28	88-74-4	
3-Nitroaniline	ND	ug/L	20.0	3.8	1	09/06/22 16:00	09/07/22 16:28	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	5.1	1	09/06/22 16:00	09/07/22 16:28	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 16:28	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 16:28	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	6.6	1	09/06/22 16:00	09/07/22 16:28	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1.9	1	09/06/22 16:00	09/07/22 16:28	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1.3	1	09/06/22 16:00	09/07/22 16:28	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	3.0	1	09/06/22 16:00	09/07/22 16:28	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.2	1	09/06/22 16:00	09/07/22 16:28	108-60-1	
Pentachlorophenol	ND	ug/L	20.0	3.8	1	09/06/22 16:00	09/07/22 16:28	87-86-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

**Sample: GW-DUP**      **Lab ID: 92623351004**      Collected: 08/31/22 20:05      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8270E RVE</b>									
Analytical Method: EPA 8270E    Preparation Method: EPA 3510C									
Pace Analytical Services - Charlotte									
Phenanthrene	ND	ug/L	10.0	2.0	1	09/06/22 16:00	09/07/22 16:28	85-01-8	
Phenol	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 16:28	108-95-2	
Pyrene	ND	ug/L	10.0	2.2	1	09/06/22 16:00	09/07/22 16:28	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1.7	1	09/06/22 16:00	09/07/22 16:28	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1.4	1	09/06/22 16:00	09/07/22 16:28	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.6	1	09/06/22 16:00	09/07/22 16:28	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	69	%	10-144		1	09/06/22 16:00	09/07/22 16:28	4165-60-0	
2-Fluorobiphenyl (S)	55	%	10-130		1	09/06/22 16:00	09/07/22 16:28	321-60-8	
Terphenyl-d14 (S)	115	%	34-163		1	09/06/22 16:00	09/07/22 16:28	1718-51-0	
Phenol-d6 (S)	48	%	10-130		1	09/06/22 16:00	09/07/22 16:28	13127-88-3	
2-Fluorophenol (S)	46	%	10-130		1	09/06/22 16:00	09/07/22 16:28	367-12-4	
2,4,6-Tribromophenol (S)	74	%	10-144		1	09/06/22 16:00	09/07/22 16:28	118-79-6	
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	ND	ug/L	25.0	5.1	1		09/07/22 19:07	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		09/07/22 19:07	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/07/22 19:07	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/07/22 19:07	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/07/22 19:07	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/07/22 19:07	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/07/22 19:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/07/22 19:07	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/07/22 19:07	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/07/22 19:07	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/07/22 19:07	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/07/22 19:07	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/07/22 19:07	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 19:07	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 19:07	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/07/22 19:07	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/07/22 19:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/07/22 19:07	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/07/22 19:07	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 19:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 19:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/07/22 19:07	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/07/22 19:07	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/07/22 19:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 19:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/07/22 19:07	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 19:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/07/22 19:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/07/22 19:07	78-87-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009

Pace Project No.: 92623351

**Sample: GW-DUP**      **Lab ID: 92623351004**      Collected: 08/31/22 20:05      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/07/22 19:07	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/07/22 19:07	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/07/22 19:07	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 19:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 19:07	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/07/22 19:07	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/07/22 19:07	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/07/22 19:07	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/07/22 19:07	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/07/22 19:07	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/07/22 19:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/07/22 19:07	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/07/22 19:07	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/07/22 19:07	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/07/22 19:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/07/22 19:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/07/22 19:07	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/07/22 19:07	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/07/22 19:07	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/07/22 19:07	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/07/22 19:07	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/07/22 19:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 19:07	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 19:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/07/22 19:07	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/07/22 19:07	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/07/22 19:07	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/07/22 19:07	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/07/22 19:07	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/07/22 19:07	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/07/22 19:07	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	101	%	70-130		1		09/07/22 19:07	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		09/07/22 19:07	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		09/07/22 19:07	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod.									
Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/02/22 20:07	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		09/02/22 20:07	17060-07-0	
Toluene-d8 (S)	88	%	70-130		1		09/02/22 20:07	2037-26-5	

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

Sample: <b>GW-DUP</b>		Lab ID: <b>92623351004</b>		Collected: 08/31/22 20:05	Received: 09/01/22 09:01	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>Wet Chemistry 7199</b>		Analytical Method: EPA 7199 Preparation Method: 7199 Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	ug/L	0.500	0.150	1	09/04/22 15:19	09/04/22 15:19	18540-29-9		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	<b>389</b>	mg/L	25.0	25.0	1		09/04/22 12:12			
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville								
Chloride	<b>35.4</b>	mg/L	1.0	0.60	1		09/02/22 13:09	16887-00-6		
Fluoride	<b>0.14</b>	mg/L	0.10	0.050	1		09/02/22 13:09	16984-48-8		
Nitrate as N	ND	mg/L	0.10	0.060	1		09/02/22 13:09	14797-55-8		
Sulfate	<b>15.4</b>	mg/L	1.0	0.50	1		09/02/22 13:09	14808-79-8		

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

**Sample: Trip Blank-2**      **Lab ID: 92623351005**      Collected: 08/31/22 00:00      Received: 09/01/22 09:01      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
Acetone	78.5	ug/L	25.0	5.1	1		09/07/22 05:37	67-64-1	T3
Benzene	ND	ug/L	1.0	0.34	1		09/07/22 05:37	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		09/07/22 05:37	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		09/07/22 05:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		09/07/22 05:37	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		09/07/22 05:37	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		09/07/22 05:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		09/07/22 05:37	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		09/07/22 05:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		09/07/22 05:37	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		09/07/22 05:37	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		09/07/22 05:37	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		09/07/22 05:37	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 05:37	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		09/07/22 05:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		09/07/22 05:37	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		09/07/22 05:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		09/07/22 05:37	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		09/07/22 05:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 05:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		09/07/22 05:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		09/07/22 05:37	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		09/07/22 05:37	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		09/07/22 05:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 05:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		09/07/22 05:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 05:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		09/07/22 05:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		09/07/22 05:37	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		09/07/22 05:37	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		09/07/22 05:37	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		09/07/22 05:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 05:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		09/07/22 05:37	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		09/07/22 05:37	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		09/07/22 05:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		09/07/22 05:37	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		09/07/22 05:37	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		09/07/22 05:37	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		09/07/22 05:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		09/07/22 05:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		09/07/22 05:37	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		09/07/22 05:37	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		09/07/22 05:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		09/07/22 05:37	630-20-6	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: TCH-009  
Pace Project No.: 92623351

Sample: Trip Blank-2      Lab ID: 92623351005      Collected: 08/31/22 00:00      Received: 09/01/22 09:01      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260D MSV Low Level</b>									
Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		09/07/22 05:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.29	1		09/07/22 05:37	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		09/07/22 05:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		09/07/22 05:37	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		09/07/22 05:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		09/07/22 05:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		09/07/22 05:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		09/07/22 05:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		09/07/22 05:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		09/07/22 05:37	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		09/07/22 05:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		09/07/22 05:37	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		09/07/22 05:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		09/07/22 05:37	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		09/07/22 05:37	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	99	%	70-130		1		09/07/22 05:37	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		09/07/22 05:37	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		09/07/22 05:37	2037-26-5	
<b>8260D MSV SIM</b>									
Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte									
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	0.86	1		09/02/22 18:50	123-91-1	
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		09/02/22 18:50	17060-07-0	
Toluene-d8 (S)	88	%	70-130		1		09/02/22 18:50	2037-26-5	

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**QUALITY CONTROL DATA**

Project: TCH-009

Pace Project No.: 92623351

QC Batch: 721990

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

METHOD BLANK: 3761823

Matrix: Water

Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	09/09/22 11:32	

LABORATORY CONTROL SAMPLE: 3761824

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3761825 3761826

Parameter	Units	3761825		3761826		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623049003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	ug/L	ND	2.5	2.5	2.6	2.8	105	111	75-125	6	25

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

QC Batch: 721411      Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A      Analysis Description: 6010 MET  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

METHOD BLANK: 3758845      Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	ND	5.0	3.5	09/19/22 20:50	
Boron	ug/L	ND	50.0	32.4	09/19/22 20:50	
Manganese	ug/L	ND	5.0	3.4	09/19/22 20:50	
Strontium	ug/L	ND	5.0	3.5	09/19/22 20:50	
Zinc	ug/L	ND	10.0	9.5	09/19/22 20:50	

LABORATORY CONTROL SAMPLE: 3758846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	500	506	101	80-120	
Boron	ug/L	500	486	97	80-120	
Manganese	ug/L	500	514	103	80-120	
Strontium	ug/L	500	510	102	80-120	
Zinc	ug/L	500	489	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3758847      3758848

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623291003 Result	Spike Conc.	Spike Conc.	Result						
Barium	ug/L	91.9	500	500	613	611	104	104	75-125	0	20
Boron	ug/L	857	500	500	1400	1380	109	105	75-125	2	20
Manganese	ug/L	903	500	500	1440	1420	107	103	75-125	1	20
Strontium	ug/L	615	500	500	1150	1130	107	102	75-125	2	20
Zinc	ug/L	ND	500	500	513	507	102	101	75-125	1	20

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

QC Batch: 721981 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3010A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

METHOD BLANK: 3761800 Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.20	09/09/22 13:52	
Arsenic	ug/L	ND	1.0	0.087	09/09/22 13:52	
Beryllium	ug/L	ND	0.10	0.050	09/09/22 13:52	
Cadmium	ug/L	ND	0.20	0.060	09/09/22 13:52	
Chromium	ug/L	ND	1.0	0.50	09/09/22 13:52	
Cobalt	ug/L	ND	1.0	0.050	09/09/22 13:52	
Copper	ug/L	ND	2.0	1.1	09/09/22 13:52	
Lithium	ug/L	ND	2.5	0.50	09/09/22 13:52	
Molybdenum	ug/L	ND	1.0	0.13	09/09/22 13:52	
Nickel	ug/L	ND	1.0	0.42	09/09/22 13:52	
Selenium	ug/L	ND	2.0	0.072	09/11/22 19:01	
Thallium	ug/L	ND	0.47	0.050	09/09/22 13:52	
Vanadium	ug/L	ND	1.0	0.25	09/09/22 13:52	

LABORATORY CONTROL SAMPLE: 3761801

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	50	47.5	95	80-120	
Arsenic	ug/L	50	48.3	97	80-120	
Beryllium	ug/L	50	50.4	101	80-120	
Cadmium	ug/L	50	49.1	98	80-120	
Chromium	ug/L	50	48.1	96	80-120	
Cobalt	ug/L	50	48.6	97	80-120	
Copper	ug/L	50	48.2	96	80-120	
Lithium	ug/L	50	49.4	99	80-120	
Molybdenum	ug/L	50	47.3	95	80-120	
Nickel	ug/L	50	48.5	97	80-120	
Selenium	ug/L	50	49.8	100	80-120	
Thallium	ug/L	25	24.0	96	80-120	
Vanadium	ug/L	50	49.2	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3761802 3761803

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623351001	Result	Conc.	Conc.								
Antimony	ug/L	ND	50	50	47.9	44.3	96	89	75-125	8	20		
Arsenic	ug/L	37.0	50	50	88.8	84.0	104	94	75-125	5	20		

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

Parameter	Units	3761802		3761803		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623351001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Beryllium	ug/L	ND	50	50	43.7	40.1	87	80	75-125	9	20		
Cadmium	ug/L	ND	50	50	47.2	44.1	94	88	75-125	7	20		
Chromium	ug/L	0.97J	50	50	45.6	42.2	89	82	75-125	8	20		
Cobalt	ug/L	0.40J	50	50	44.3	41.2	88	82	75-125	7	20		
Copper	ug/L	ND	50	50	43.3	39.9	85	78	75-125	8	20		
Lithium	ug/L	110	50	50	156	145	92	70	75-125	7	20	M1	
Molybdenum	ug/L	0.79J	50	50	49.2	45.9	97	90	75-125	7	20		
Nickel	ug/L	ND	50	50	44.1	40.7	88	81	75-125	8	20		
Selenium	ug/L	0.12J	50	50	48.4	49.8	97	99	75-125	3	20		
Thallium	ug/L	ND	25	25	24.3	22.8	97	91	75-125	6	20		
Vanadium	ug/L	1.7	50	50	50.8	47.6	98	92	75-125	7	20		

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

QC Batch: 721642	Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D	Analysis Description: 8260D MSV Low Level
	Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92623351005

METHOD BLANK: 3759964 Matrix: Water

Associated Lab Samples: 92623351005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.31	09/07/22 05:00	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.33	09/07/22 05:00	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.22	09/07/22 05:00	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.32	09/07/22 05:00	
1,1-Dichloroethane	ug/L	ND	1.0	0.37	09/07/22 05:00	
1,1-Dichloroethene	ug/L	ND	1.0	0.35	09/07/22 05:00	
1,1-Dichloropropene	ug/L	ND	1.0	0.43	09/07/22 05:00	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.81	09/07/22 05:00	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.26	09/07/22 05:00	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.64	09/07/22 05:00	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	0.34	09/07/22 05:00	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	09/07/22 05:00	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.34	09/07/22 05:00	
1,2-Dichloroethane	ug/L	ND	1.0	0.32	09/07/22 05:00	
1,2-Dichloropropane	ug/L	ND	1.0	0.36	09/07/22 05:00	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.34	09/07/22 05:00	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	09/07/22 05:00	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	09/07/22 05:00	
2,2-Dichloropropane	ug/L	ND	1.0	0.39	09/07/22 05:00	
2-Butanone (MEK)	ug/L	ND	5.0	4.0	09/07/22 05:00	
2-Chlorotoluene	ug/L	ND	1.0	0.32	09/07/22 05:00	
2-Hexanone	ug/L	ND	5.0	0.48	09/07/22 05:00	
4-Chlorotoluene	ug/L	ND	1.0	0.32	09/07/22 05:00	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	2.7	09/07/22 05:00	
Acetone	ug/L	ND	25.0	5.1	09/07/22 05:00	
Benzene	ug/L	ND	1.0	0.34	09/07/22 05:00	
Bromobenzene	ug/L	ND	1.0	0.29	09/07/22 05:00	
Bromochloromethane	ug/L	ND	1.0	0.47	09/07/22 05:00	
Bromodichloromethane	ug/L	ND	1.0	0.31	09/07/22 05:00	
Bromoform	ug/L	ND	1.0	0.34	09/07/22 05:00	
Bromomethane	ug/L	ND	2.0	1.7	09/07/22 05:00	
Carbon tetrachloride	ug/L	ND	1.0	0.33	09/07/22 05:00	
Chlorobenzene	ug/L	ND	1.0	0.28	09/07/22 05:00	
Chloroethane	ug/L	ND	1.0	0.65	09/07/22 05:00	
Chloroform	ug/L	ND	1.0	0.43	09/07/22 05:00	
Chloromethane	ug/L	ND	1.0	0.54	09/07/22 05:00	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.38	09/07/22 05:00	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/07/22 05:00	
Dibromochloromethane	ug/L	ND	1.0	0.36	09/07/22 05:00	
Dibromomethane	ug/L	ND	1.0	0.39	09/07/22 05:00	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

METHOD BLANK: 3759964

Matrix: Water

Associated Lab Samples: 92623351005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	0.35	09/07/22 05:00	
Diisopropyl ether	ug/L	ND	1.0	0.31	09/07/22 05:00	
Ethylbenzene	ug/L	ND	1.0	0.30	09/07/22 05:00	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.5	09/07/22 05:00	
m&p-Xylene	ug/L	ND	2.0	0.71	09/07/22 05:00	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	09/07/22 05:00	
Methylene Chloride	ug/L	ND	5.0	2.0	09/07/22 05:00	
Naphthalene	ug/L	ND	1.0	0.64	09/07/22 05:00	
o-Xylene	ug/L	ND	1.0	0.34	09/07/22 05:00	
p-Isopropyltoluene	ug/L	ND	1.0	0.41	09/07/22 05:00	
Styrene	ug/L	ND	1.0	0.29	09/07/22 05:00	
Tetrachloroethene	ug/L	ND	1.0	0.29	09/07/22 05:00	
Toluene	ug/L	ND	1.0	0.48	09/07/22 05:00	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.40	09/07/22 05:00	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/07/22 05:00	
Trichloroethene	ug/L	ND	1.0	0.38	09/07/22 05:00	
Trichlorofluoromethane	ug/L	ND	1.0	0.30	09/07/22 05:00	
Vinyl acetate	ug/L	ND	2.0	1.3	09/07/22 05:00	
Vinyl chloride	ug/L	ND	1.0	0.39	09/07/22 05:00	
Xylene (Total)	ug/L	ND	1.0	0.34	09/07/22 05:00	
1,2-Dichloroethane-d4 (S)	%	103	70-130		09/07/22 05:00	
4-Bromofluorobenzene (S)	%	102	70-130		09/07/22 05:00	
Toluene-d8 (S)	%	98	70-130		09/07/22 05:00	

LABORATORY CONTROL SAMPLE: 3759965

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.0	92	70-130	
1,1,1-Trichloroethane	ug/L	50	47.6	95	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	44.5	89	70-130	
1,1,2-Trichloroethane	ug/L	50	45.6	91	70-130	
1,1-Dichloroethane	ug/L	50	45.5	91	70-130	
1,1-Dichloroethene	ug/L	50	46.0	92	70-130	
1,1-Dichloropropene	ug/L	50	47.9	96	70-130	
1,2,3-Trichlorobenzene	ug/L	50	46.5	93	70-130	
1,2,3-Trichloropropane	ug/L	50	43.7	87	70-130	
1,2,4-Trichlorobenzene	ug/L	50	45.9	92	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	45.1	90	70-131	
1,2-Dibromoethane (EDB)	ug/L	50	46.4	93	70-130	
1,2-Dichlorobenzene	ug/L	50	44.8	90	70-130	
1,2-Dichloroethane	ug/L	50	49.3	99	70-130	
1,2-Dichloropropane	ug/L	50	45.1	90	70-130	
1,3-Dichlorobenzene	ug/L	50	44.7	89	70-130	
1,3-Dichloropropane	ug/L	50	44.5	89	70-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

LABORATORY CONTROL SAMPLE: 3759965

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	44.6	89	70-130	
2,2-Dichloropropane	ug/L	50	46.2	92	68-135	
2-Butanone (MEK)	ug/L	100	81.3	81	70-134	
2-Chlorotoluene	ug/L	50	44.2	88	70-130	
2-Hexanone	ug/L	100	86.9	87	70-131	
4-Chlorotoluene	ug/L	50	44.2	88	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	89.1	89	70-130	
Acetone	ug/L	100	86.7	87	70-133	
Benzene	ug/L	50	44.5	89	70-130	
Bromobenzene	ug/L	50	45.1	90	70-130	
Bromochloromethane	ug/L	50	47.4	95	70-130	
Bromodichloromethane	ug/L	50	47.5	95	70-130	
Bromoform	ug/L	50	49.5	99	70-130	
Bromomethane	ug/L	50	53.2	106	45-151	
Carbon tetrachloride	ug/L	50	49.1	98	70-130	
Chlorobenzene	ug/L	50	45.7	91	70-130	
Chloroethane	ug/L	50	49.9	100	39-152	
Chloroform	ug/L	50	45.3	91	70-130	
Chloromethane	ug/L	50	46.8	94	58-130	
cis-1,2-Dichloroethene	ug/L	50	46.6	93	70-130	
cis-1,3-Dichloropropene	ug/L	50	47.0	94	70-130	
Dibromochloromethane	ug/L	50	48.6	97	70-130	
Dibromomethane	ug/L	50	48.3	97	70-130	
Dichlorodifluoromethane	ug/L	50	51.1	102	54-133	
Diisopropyl ether	ug/L	50	45.5	91	70-130	
Ethylbenzene	ug/L	50	44.6	89	70-130	
Hexachloro-1,3-butadiene	ug/L	50	47.4	95	70-135	
m&p-Xylene	ug/L	100	89.1	89	70-130	
Methyl-tert-butyl ether	ug/L	50	45.3	91	70-130	
Methylene Chloride	ug/L	50	42.6	85	66-130	
Naphthalene	ug/L	50	45.4	91	70-130	
o-Xylene	ug/L	50	45.3	91	70-130	
p-Isopropyltoluene	ug/L	50	46.4	93	70-130	
Styrene	ug/L	50	46.4	93	70-130	
Tetrachloroethene	ug/L	50	44.2	88	70-130	
Toluene	ug/L	50	43.9	88	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.9	96	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.4	97	70-130	
Trichloroethene	ug/L	50	46.5	93	70-130	
Trichlorofluoromethane	ug/L	50	43.7	87	62-130	
Vinyl acetate	ug/L	100	96.4	96	70-144	
Vinyl chloride	ug/L	50	47.7	95	62-130	
Xylene (Total)	ug/L	150	134	90	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: TCH-009

Pace Project No.: 92623351

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3759966 3759967													
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92623708002 Result	Spike Conc.	Spike Conc.	MS Conc.								
1,1,1,2-Tetrachloroethane	ug/L	ND	200	200	231	220	116	110	70-141	5	30		
1,1,1-Trichloroethane	ug/L	ND	200	200	243	240	122	120	70-150	1	30		
1,1,2,2-Tetrachloroethane	ug/L	ND	200	200	206	204	103	102	69-142	1	30		
1,1,2-Trichloroethane	ug/L	ND	200	200	213	208	107	104	70-138	3	30		
1,1-Dichloroethane	ug/L	ND	200	200	227	238	114	119	70-150	5	30		
1,1-Dichloroethene	ug/L	ND	200	200	241	240	117	116	70-156	0	30		
1,1-Dichloropropene	ug/L	ND	200	200	240	248	120	124	70-150	3	30		
1,2,3-Trichlorobenzene	ug/L	ND	200	200	217	205	108	102	70-148	6	30		
1,2,3-Trichloropropane	ug/L	ND	200	200	205	205	102	102	70-140	0	30		
1,2,4-Trichlorobenzene	ug/L	ND	200	200	213	207	106	103	70-146	3	30		
1,2-Dibromo-3-chloropropane	ug/L	ND	200	200	211	211	105	105	68-146	0	30		
1,2-Dibromoethane (EDB)	ug/L	ND	200	200	216	216	108	108	70-138	0	30		
1,2-Dichlorobenzene	ug/L	ND	200	200	210	216	105	108	70-141	2	30		
1,2-Dichloroethane	ug/L	ND	200	200	226	231	113	116	69-143	2	30		
1,2-Dichloropropane	ug/L	ND	200	200	210	220	105	110	68-156	4	30		
1,3-Dichlorobenzene	ug/L	ND	200	200	224	226	112	113	70-143	1	30		
1,3-Dichloropropane	ug/L	ND	200	200	215	210	108	105	70-138	3	30		
1,4-Dichlorobenzene	ug/L	ND	200	200	206	210	103	105	70-142	2	30		
2,2-Dichloropropane	ug/L	ND	200	200	224	233	112	116	52-170	4	30		
2-Butanone (MEK)	ug/L	ND	400	400	342	362	86	91	60-157	6	30		
2-Chlorotoluene	ug/L	ND	200	200	210	221	105	111	70-147	5	30		
2-Hexanone	ug/L	ND	400	400	383	388	96	97	68-146	1	30		
4-Chlorotoluene	ug/L	ND	200	200	208	215	104	108	70-142	3	30		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	400	400	376	387	94	97	70-141	3	30		
Acetone	ug/L	ND	400	400	378	390	95	98	58-157	3	30		
Benzene	ug/L	ND	200	200	223	226	111	113	70-142	1	30		
Bromobenzene	ug/L	ND	200	200	216	219	108	110	70-143	1	30		
Bromochloromethane	ug/L	ND	200	200	235	245	117	122	70-146	4	30		
Bromodichloromethane	ug/L	ND	200	200	225	229	112	114	70-139	2	30		
Bromoform	ug/L	ND	200	200	227	226	114	113	64-140	1	30		
Bromomethane	ug/L	ND	200	200	341	354	171	177	28-192	4	30		
Carbon tetrachloride	ug/L	ND	200	200	264	255	127	123	70-148	3	30		
Chlorobenzene	ug/L	ND	200	200	222	220	111	110	70-141	1	30		
Chloroethane	ug/L	ND	200	200	261	254	131	127	58-191	3	30		
Chloroform	ug/L	ND	200	200	214	239	105	117	70-148	11	30		
Chloromethane	ug/L	ND	200	200	238	245	119	123	43-162	3	30		
cis-1,2-Dichloroethene	ug/L	21.3	200	200	242	248	110	113	68-151	3	30		
cis-1,3-Dichloropropene	ug/L	ND	200	200	221	220	110	110	70-139	0	30		
Dibromochloromethane	ug/L	ND	200	200	229	227	114	113	70-144	1	30		
Dibromomethane	ug/L	ND	200	200	220	228	110	114	70-139	3	30		
Dichlorodifluoromethane	ug/L	ND	200	200	263	263	132	131	39-171	0	30		
Diisopropyl ether	ug/L	ND	200	200	212	221	106	111	67-142	4	30		
Ethylbenzene	ug/L	ND	200	200	228	226	112	111	70-143	1	30		
Hexachloro-1,3-butadiene	ug/L	ND	200	200	233	238	116	119	64-163	2	30		

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

Parameter	Units	92623708002		3759966		3759967		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
m&p-Xylene	ug/L	ND	400	400	454	454	114	113	70-144	0	30			
Methyl-tert-butyl ether	ug/L	ND	200	200	215	220	107	110	65-143	2	30			
Methylene Chloride	ug/L	ND	200	200	191	195	95	98	62-149	2	30			
Naphthalene	ug/L	ND	200	200	207	205	103	102	67-147	1	30			
o-Xylene	ug/L	ND	200	200	223	220	111	110	70-145	1	30			
p-Isopropyltoluene	ug/L	ND	200	200	225	235	113	118	70-147	4	30			
Styrene	ug/L	ND	200	200	227	221	113	110	70-143	3	30			
Tetrachloroethene	ug/L	1510	200	200	1790	1750	141	116	70-145	3	30			
Toluene	ug/L	ND	200	200	215	217	108	109	70-142	1	30			
trans-1,2-Dichloroethene	ug/L	ND	200	200	242	247	121	124	70-151	2	30			
trans-1,3-Dichloropropene	ug/L	ND	200	200	220	214	110	107	70-139	2	30			
Trichloroethene	ug/L	261	200	200	503	512	121	125	62-146	2	30			
Trichlorofluoromethane	ug/L	ND	200	200	246	246	119	119	63-153	0	30			
Vinyl acetate	ug/L	ND	400	400	446	448	112	112	61-162	1	30			
Vinyl chloride	ug/L	ND	200	200	242	251	121	126	61-163	4	30			
Xylene (Total)	ug/L	ND	600	600	677	674	113	112	70-143	0	30			
1,2-Dichloroethane-d4 (S)	%						102	102	70-130					
4-Bromofluorobenzene (S)	%						104	101	70-130					
Toluene-d8 (S)	%						98	99	70-130					

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

QC Batch: 721650 Analysis Method: EPA 8260D  
QC Batch Method: EPA 8260D Analysis Description: 8260D MSV Low Level  
Laboratory: Pace Analytical Services - Charlotte  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

METHOD BLANK: 3759987 Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.31	09/07/22 17:36	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.33	09/07/22 17:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.22	09/07/22 17:36	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.32	09/07/22 17:36	
1,1-Dichloroethane	ug/L	ND	1.0	0.37	09/07/22 17:36	
1,1-Dichloroethene	ug/L	ND	1.0	0.35	09/07/22 17:36	
1,1-Dichloropropene	ug/L	ND	1.0	0.43	09/07/22 17:36	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.81	09/07/22 17:36	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.26	09/07/22 17:36	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.64	09/07/22 17:36	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	0.34	09/07/22 17:36	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	09/07/22 17:36	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.34	09/07/22 17:36	
1,2-Dichloroethane	ug/L	ND	1.0	0.32	09/07/22 17:36	
1,2-Dichloropropane	ug/L	ND	1.0	0.36	09/07/22 17:36	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.34	09/07/22 17:36	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	09/07/22 17:36	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	09/07/22 17:36	
2,2-Dichloropropane	ug/L	ND	1.0	0.39	09/07/22 17:36	
2-Butanone (MEK)	ug/L	ND	5.0	4.0	09/07/22 17:36	
2-Chlorotoluene	ug/L	ND	1.0	0.32	09/07/22 17:36	
2-Hexanone	ug/L	ND	5.0	0.48	09/07/22 17:36	
4-Chlorotoluene	ug/L	ND	1.0	0.32	09/07/22 17:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	2.7	09/07/22 17:36	
Acetone	ug/L	ND	25.0	5.1	09/07/22 17:36	
Benzene	ug/L	ND	1.0	0.34	09/07/22 17:36	
Bromobenzene	ug/L	ND	1.0	0.29	09/07/22 17:36	
Bromochloromethane	ug/L	ND	1.0	0.47	09/07/22 17:36	
Bromodichloromethane	ug/L	ND	1.0	0.31	09/07/22 17:36	
Bromoform	ug/L	ND	1.0	0.34	09/07/22 17:36	
Bromomethane	ug/L	ND	2.0	1.7	09/07/22 17:36	
Carbon tetrachloride	ug/L	ND	1.0	0.33	09/07/22 17:36	
Chlorobenzene	ug/L	ND	1.0	0.28	09/07/22 17:36	
Chloroethane	ug/L	ND	1.0	0.65	09/07/22 17:36	
Chloroform	ug/L	ND	1.0	0.43	09/07/22 17:36	
Chloromethane	ug/L	ND	1.0	0.54	09/07/22 17:36	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.38	09/07/22 17:36	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/07/22 17:36	
Dibromochloromethane	ug/L	ND	1.0	0.36	09/07/22 17:36	
Dibromomethane	ug/L	ND	1.0	0.39	09/07/22 17:36	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

METHOD BLANK: 3759987 Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	0.35	09/07/22 17:36	
Diisopropyl ether	ug/L	ND	1.0	0.31	09/07/22 17:36	
Ethylbenzene	ug/L	ND	1.0	0.30	09/07/22 17:36	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.5	09/07/22 17:36	
m&p-Xylene	ug/L	ND	2.0	0.71	09/07/22 17:36	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	09/07/22 17:36	
Methylene Chloride	ug/L	ND	5.0	2.0	09/07/22 17:36	
Naphthalene	ug/L	ND	1.0	0.64	09/07/22 17:36	
o-Xylene	ug/L	ND	1.0	0.34	09/07/22 17:36	
p-Isopropyltoluene	ug/L	ND	1.0	0.41	09/07/22 17:36	
Styrene	ug/L	ND	1.0	0.29	09/07/22 17:36	
Tetrachloroethene	ug/L	ND	1.0	0.29	09/07/22 17:36	
Toluene	ug/L	ND	1.0	0.48	09/07/22 17:36	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.40	09/07/22 17:36	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.36	09/07/22 17:36	
Trichloroethene	ug/L	ND	1.0	0.38	09/07/22 17:36	
Trichlorofluoromethane	ug/L	ND	1.0	0.30	09/07/22 17:36	
Vinyl acetate	ug/L	ND	2.0	1.3	09/07/22 17:36	
Vinyl chloride	ug/L	ND	1.0	0.39	09/07/22 17:36	
Xylene (Total)	ug/L	ND	1.0	0.34	09/07/22 17:36	
1,2-Dichloroethane-d4 (S)	%	107	70-130		09/07/22 17:36	
4-Bromofluorobenzene (S)	%	100	70-130		09/07/22 17:36	
Toluene-d8 (S)	%	100	70-130		09/07/22 17:36	

LABORATORY CONTROL SAMPLE: 3759988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.2	92	70-130	
1,1,1-Trichloroethane	ug/L	50	48.3	97	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.6	91	70-130	
1,1,2-Trichloroethane	ug/L	50	46.5	93	70-130	
1,1-Dichloroethane	ug/L	50	49.3	99	70-130	
1,1-Dichloroethene	ug/L	50	50.2	100	70-130	
1,1-Dichloropropene	ug/L	50	52.0	104	70-130	
1,2,3-Trichlorobenzene	ug/L	50	42.4	85	70-130	
1,2,3-Trichloropropane	ug/L	50	45.5	91	70-130	
1,2,4-Trichlorobenzene	ug/L	50	44.5	89	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	43.9	88	70-131	
1,2-Dibromoethane (EDB)	ug/L	50	46.6	93	70-130	
1,2-Dichlorobenzene	ug/L	50	45.3	91	70-130	
1,2-Dichloroethane	ug/L	50	47.8	96	70-130	
1,2-Dichloropropane	ug/L	50	49.2	98	70-130	
1,3-Dichlorobenzene	ug/L	50	46.4	93	70-130	
1,3-Dichloropropane	ug/L	50	45.8	92	70-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

LABORATORY CONTROL SAMPLE: 3759988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	45.5	91	70-130	
2,2-Dichloropropane	ug/L	50	49.1	98	68-135	
2-Butanone (MEK)	ug/L	100	94.0	94	70-134	
2-Chlorotoluene	ug/L	50	46.0	92	70-130	
2-Hexanone	ug/L	100	90.2	90	70-131	
4-Chlorotoluene	ug/L	50	46.0	92	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.6	95	70-130	
Acetone	ug/L	100	99.5	99	70-133	
Benzene	ug/L	50	46.2	92	70-130	
Bromobenzene	ug/L	50	44.8	90	70-130	
Bromochloromethane	ug/L	50	48.1	96	70-130	
Bromodichloromethane	ug/L	50	47.6	95	70-130	
Bromoform	ug/L	50	45.4	91	70-130	
Bromomethane	ug/L	50	58.2	116	45-151	
Carbon tetrachloride	ug/L	50	46.7	93	70-130	
Chlorobenzene	ug/L	50	45.9	92	70-130	
Chloroethane	ug/L	50	54.7	109	39-152	
Chloroform	ug/L	50	47.6	95	70-130	
Chloromethane	ug/L	50	49.6	99	58-130	
cis-1,2-Dichloroethene	ug/L	50	50.1	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.0	98	70-130	
Dibromochloromethane	ug/L	50	46.1	92	70-130	
Dibromomethane	ug/L	50	45.1	90	70-130	
Dichlorodifluoromethane	ug/L	50	47.8	96	54-133	
Diisopropyl ether	ug/L	50	51.7	103	70-130	
Ethylbenzene	ug/L	50	45.0	90	70-130	
Hexachloro-1,3-butadiene	ug/L	50	45.7	91	70-135	
m&p-Xylene	ug/L	100	91.1	91	70-130	
Methyl-tert-butyl ether	ug/L	50	47.6	95	70-130	
Methylene Chloride	ug/L	50	47.3	95	66-130	
Naphthalene	ug/L	50	43.6	87	70-130	
o-Xylene	ug/L	50	45.7	91	70-130	
p-Isopropyltoluene	ug/L	50	47.5	95	70-130	
Styrene	ug/L	50	46.5	93	70-130	
Tetrachloroethene	ug/L	50	44.6	89	70-130	
Toluene	ug/L	50	46.1	92	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.8	102	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.7	95	70-130	
Trichloroethene	ug/L	50	48.6	97	70-130	
Trichlorofluoromethane	ug/L	50	44.4	89	62-130	
Vinyl acetate	ug/L	100	117	117	70-144	
Vinyl chloride	ug/L	50	52.1	104	62-130	
Xylene (Total)	ug/L	150	137	91	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			100	70-130	

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: TCH-009

Pace Project No.: 92623351

Parameter	Units	92623637001		MS		MSD		3760895		3760896		Qual
		Result	Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	
1,1,1,2-Tetrachloroethane	ug/L	ND	100	100	105	105	105	105	70-141	1	30	
1,1,1-Trichloroethane	ug/L	ND	100	100	125	127	125	127	70-150	1	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	100	100	101	106	101	106	69-142	4	30	
1,1,2-Trichloroethane	ug/L	ND	100	100	105	109	105	109	70-138	4	30	
1,1-Dichloroethane	ug/L	ND	100	100	124	127	124	127	70-150	3	30	
1,1-Dichloroethene	ug/L	ND	100	100	137	138	137	138	70-156	1	30	
1,1-Dichloropropene	ug/L	ND	100	100	129	138	129	138	70-150	6	30	
1,2,3-Trichlorobenzene	ug/L	ND	100	100	79.9	81.9	80	82	70-148	2	30	
1,2,3-Trichloropropane	ug/L	ND	100	100	98.9	107	99	107	70-140	7	30	
1,2,4-Trichlorobenzene	ug/L	ND	100	100	88.8	93.5	89	94	70-146	5	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	100	100	89.8	94.9	90	95	68-146	5	30	
1,2-Dibromoethane (EDB)	ug/L	ND	100	100	100	107	100	107	70-138	6	30	
1,2-Dichlorobenzene	ug/L	ND	100	100	102	105	102	105	70-141	3	30	
1,2-Dichloroethane	ug/L	ND	100	100	116	122	116	122	69-143	5	30	
1,2-Dichloropropane	ug/L	ND	100	100	116	117	116	117	68-156	1	30	
1,3-Dichlorobenzene	ug/L	ND	100	100	105	108	105	108	70-143	3	30	
1,3-Dichloropropane	ug/L	ND	100	100	103	107	103	107	70-138	3	30	
1,4-Dichlorobenzene	ug/L	ND	100	100	104	106	104	106	70-142	2	30	
2,2-Dichloropropane	ug/L	ND	100	100	114	116	114	116	52-170	2	30	
2-Butanone (MEK)	ug/L	ND	200	200	228	250	114	125	60-157	9	30	
2-Chlorotoluene	ug/L	ND	100	100	103	109	103	109	70-147	5	30	
2-Hexanone	ug/L	ND	200	200	247	258	123	129	68-146	5	30	
4-Chlorotoluene	ug/L	ND	100	100	104	110	104	110	70-142	6	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	200	200	219	228	106	110	70-141	4	30	
Acetone	ug/L	1910	200	200	2070	2160	76	123	58-157	4	30	E
Benzene	ug/L	ND	100	100	114	114	114	114	70-142	0	30	
Bromobenzene	ug/L	ND	100	100	103	103	103	103	70-143	0	30	
Bromochloromethane	ug/L	ND	100	100	109	112	109	112	70-146	3	30	
Bromodichloromethane	ug/L	ND	100	100	110	113	110	113	70-139	2	30	
Bromoform	ug/L	ND	100	100	97.1	94.7	97	95	64-140	3	30	
Bromomethane	ug/L	ND	100	100	168	172	168	172	28-192	2	30	
Carbon tetrachloride	ug/L	ND	100	100	123	120	123	120	70-148	3	30	
Chlorobenzene	ug/L	ND	100	100	111	110	111	110	70-141	0	30	
Chloroethane	ug/L	ND	100	100	166	171	166	171	58-191	3	30	
Chloroform	ug/L	ND	100	100	126	128	122	124	70-148	2	30	
Chloromethane	ug/L	ND	100	100	125	128	125	128	43-162	3	30	
cis-1,2-Dichloroethene	ug/L	ND	100	100	126	128	126	128	68-151	2	30	
cis-1,3-Dichloropropene	ug/L	ND	100	100	107	110	107	110	70-139	2	30	
Dibromochloromethane	ug/L	ND	100	100	96.4	101	96	101	70-144	5	30	
Dibromomethane	ug/L	ND	100	100	102	106	102	106	70-139	3	30	
Dichlorodifluoromethane	ug/L	ND	100	100	139	142	139	142	39-171	3	30	
Diisopropyl ether	ug/L	ND	100	100	111	123	111	123	67-142	10	30	
Ethylbenzene	ug/L	ND	100	100	111	111	111	111	70-143	0	30	
Hexachloro-1,3-butadiene	ug/L	ND	100	100	118	123	118	123	64-163	4	30	

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92623351

Parameter	Units	3760895		3760896		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
m&p-Xylene	ug/L	ND	200	200	218	221	109	111	70-144	1	30		
Methyl-tert-butyl ether	ug/L	ND	100	100	106	111	106	111	65-143	5	30		
Methylene Chloride	ug/L	ND	100	100	111	110	111	110	62-149	1	30		
Naphthalene	ug/L	ND	100	100	83.5	89.2	83	89	67-147	7	30		
o-Xylene	ug/L	ND	100	100	108	108	108	108	70-145	0	30		
p-Isopropyltoluene	ug/L	ND	100	100	109	112	109	112	70-147	3	30		
Styrene	ug/L	ND	100	100	106	107	106	107	70-143	1	30		
Tetrachloroethene	ug/L	ND	100	100	103	105	103	105	70-145	2	30		
Toluene	ug/L	ND	100	100	110	114	110	114	70-142	3	30		
trans-1,2-Dichloroethene	ug/L	ND	100	100	128	134	128	134	70-151	5	30		
trans-1,3-Dichloropropene	ug/L	ND	100	100	105	109	105	109	70-139	4	30		
Trichloroethene	ug/L	ND	100	100	116	117	116	117	62-146	1	30		
Trichlorofluoromethane	ug/L	ND	100	100	130	131	130	131	63-153	1	30		
Vinyl acetate	ug/L	ND	200	200	251	271	126	135	61-162	7	30		
Vinyl chloride	ug/L	ND	100	100	142	146	142	146	61-163	2	30		
Xylene (Total)	ug/L	ND	300	300	326	329	109	110	70-143	1	30		
1,2-Dichloroethane-d4 (S)	%						106	109	70-130				
4-Bromofluorobenzene (S)	%						100	103	70-130				
Toluene-d8 (S)	%						101	102	70-130				

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

QC Batch: 721336 Analysis Method: EPA 8260D Mod.  
QC Batch Method: EPA 8260D Mod. Analysis Description: 8260D MSV SIM  
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004, 92623351005

METHOD BLANK: 3758517 Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004, 92623351005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	0.86	09/02/22 15:30	
1,2-Dichloroethane-d4 (S)	%	96	70-130		09/02/22 15:30	
Toluene-d8 (S)	%	90	70-130		09/02/22 15:30	

LABORATORY CONTROL SAMPLE: 3758518

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.7	94	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
Toluene-d8 (S)	%			90	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3758519 3758520

Parameter	Units	92623351001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	18.7	17.8	93	89	63-136	5	30	
1,2-Dichloroethane-d4 (S)	%						93	93	70-130		30	
Toluene-d8 (S)	%						87	87	70-130		30	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

QC Batch: 721579      Analysis Method: EPA 8270E  
QC Batch Method: EPA 3510C      Analysis Description: 8270E Water MSSV RVE  
Laboratory: Pace Analytical Services - Charlotte  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

METHOD BLANK: 3759571      Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	1.7	09/06/22 16:56	
1,2-Dichlorobenzene	ug/L	ND	10.0	1.8	09/06/22 16:56	
1,3-Dichlorobenzene	ug/L	ND	10.0	1.6	09/06/22 16:56	
1,4-Dichlorobenzene	ug/L	ND	10.0	1.7	09/06/22 16:56	
1-Methylnaphthalene	ug/L	ND	10.0	2.0	09/06/22 16:56	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	1.2	09/06/22 16:56	
2,4,5-Trichlorophenol	ug/L	ND	10.0	1.4	09/06/22 16:56	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.6	09/06/22 16:56	
2,4-Dichlorophenol	ug/L	ND	10.0	1.4	09/06/22 16:56	
2,4-Dimethylphenol	ug/L	ND	10.0	1.7	09/06/22 16:56	
2,4-Dinitrophenol	ug/L	ND	50.0	26.0	09/06/22 16:56	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.6	09/06/22 16:56	
2,6-Dinitrotoluene	ug/L	ND	10.0	1.7	09/06/22 16:56	
2-Chloronaphthalene	ug/L	ND	10.0	1.7	09/06/22 16:56	
2-Chlorophenol	ug/L	ND	10.0	1.2	09/06/22 16:56	
2-Methylnaphthalene	ug/L	ND	10.0	1.9	09/06/22 16:56	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.9	09/06/22 16:56	
2-Nitroaniline	ug/L	ND	20.0	3.0	09/06/22 16:56	
2-Nitrophenol	ug/L	ND	10.0	1.4	09/06/22 16:56	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.2	09/06/22 16:56	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	8.1	09/06/22 16:56	
3-Nitroaniline	ug/L	ND	20.0	3.8	09/06/22 16:56	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	7.8	09/06/22 16:56	
4-Bromophenylphenyl ether	ug/L	ND	10.0	1.8	09/06/22 16:56	
4-Chloro-3-methylphenol	ug/L	ND	10.0	3.3	09/06/22 16:56	
4-Chloroaniline	ug/L	ND	20.0	3.6	09/06/22 16:56	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	2.0	09/06/22 16:56	
4-Nitroaniline	ug/L	ND	20.0	5.1	09/06/22 16:56	
4-Nitrophenol	ug/L	ND	50.0	6.6	09/06/22 16:56	
Acenaphthene	ug/L	ND	10.0	2.0	09/06/22 16:56	
Acenaphthylene	ug/L	ND	10.0	2.0	09/06/22 16:56	
Aniline	ug/L	ND	10.0	1.6	09/06/22 16:56	
Anthracene	ug/L	ND	10.0	2.3	09/06/22 16:56	
Benzo(a)anthracene	ug/L	ND	10.0	2.7	09/06/22 16:56	
Benzo(a)pyrene	ug/L	ND	10.0	2.8	09/06/22 16:56	
Benzo(b)fluoranthene	ug/L	ND	10.0	2.6	09/06/22 16:56	
Benzo(g,h,i)perylene	ug/L	ND	10.0	2.8	09/06/22 16:56	
Benzo(k)fluoranthene	ug/L	ND	10.0	2.7	09/06/22 16:56	
Benzoic Acid	ug/L	ND	50.0	22.0	09/06/22 16:56	
Benzyl alcohol	ug/L	ND	20.0	2.9	09/06/22 16:56	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

METHOD BLANK: 3759571 Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.8	09/06/22 16:56	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	1.9	09/06/22 16:56	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	3.7	09/06/22 16:56	
Butylbenzylphthalate	ug/L	ND	10.0	3.1	09/06/22 16:56	
Chrysene	ug/L	ND	10.0	2.8	09/06/22 16:56	
Di-n-butylphthalate	ug/L	ND	10.0	2.2	09/06/22 16:56	
Di-n-octylphthalate	ug/L	ND	10.0	3.9	09/06/22 16:56	
Dibenz(a,h)anthracene	ug/L	ND	10.0	3.0	09/06/22 16:56	
Dibenzofuran	ug/L	ND	10.0	2.1	09/06/22 16:56	
Diethylphthalate	ug/L	ND	10.0	2.0	09/06/22 16:56	
Dimethylphthalate	ug/L	ND	10.0	2.1	09/06/22 16:56	
Fluoranthene	ug/L	ND	10.0	2.2	09/06/22 16:56	
Fluorene	ug/L	ND	10.0	2.1	09/06/22 16:56	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	1.8	09/06/22 16:56	
Hexachlorobenzene	ug/L	ND	10.0	2.2	09/06/22 16:56	
Hexachlorocyclopentadiene	ug/L	ND	10.0	1.6	09/06/22 16:56	
Hexachloroethane	ug/L	ND	10.0	1.4	09/06/22 16:56	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	2.9	09/06/22 16:56	
Isophorone	ug/L	ND	10.0	1.7	09/06/22 16:56	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	1.3	09/06/22 16:56	
N-Nitrosodimethylamine	ug/L	ND	10.0	1.9	09/06/22 16:56	
N-Nitrosodiphenylamine	ug/L	ND	10.0	3.0	09/06/22 16:56	
Naphthalene	ug/L	ND	10.0	2.1	09/06/22 16:56	
Nitrobenzene	ug/L	ND	10.0	1.9	09/06/22 16:56	
Pentachlorophenol	ug/L	ND	20.0	3.8	09/06/22 16:56	
Phenanthrene	ug/L	ND	10.0	2.0	09/06/22 16:56	
Phenol	ug/L	ND	10.0	1.4	09/06/22 16:56	
Pyrene	ug/L	ND	10.0	2.2	09/06/22 16:56	
2,4,6-Tribromophenol (S)	%	72	10-144		09/06/22 16:56	
2-Fluorobiphenyl (S)	%	46	10-130		09/06/22 16:56	
2-Fluorophenol (S)	%	49	10-130		09/06/22 16:56	
Nitrobenzene-d5 (S)	%	61	10-144		09/06/22 16:56	
Phenol-d6 (S)	%	42	10-130		09/06/22 16:56	
Terphenyl-d14 (S)	%	98	34-163		09/06/22 16:56	

LABORATORY CONTROL SAMPLE: 3759572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	30.6	61	18-130	
1,2-Dichlorobenzene	ug/L	50	23.7	47	20-130	
1,3-Dichlorobenzene	ug/L	50	19.9	40	18-130	
1,4-Dichlorobenzene	ug/L	50	21.1	42	18-130	
1-Methylnaphthalene	ug/L	50	41.3	83	29-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	28.6	57	28-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

LABORATORY CONTROL SAMPLE: 3759572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	50	45.5	91	35-130	
2,4,6-Trichlorophenol	ug/L	50	44.4	89	31-130	
2,4-Dichlorophenol	ug/L	50	41.6	83	35-130	
2,4-Dimethylphenol	ug/L	50	46.0	92	34-130	
2,4-Dinitrophenol	ug/L	250	184	74	10-153	
2,4-Dinitrotoluene	ug/L	50	48.0	96	37-136	
2,6-Dinitrotoluene	ug/L	50	47.7	95	33-136	
2-Chloronaphthalene	ug/L	50	43.6	87	26-130	
2-Chlorophenol	ug/L	50	36.3	73	37-130	
2-Methylnaphthalene	ug/L	50	39.9	80	29-130	
2-Methylphenol(o-Cresol)	ug/L	50	36.6	73	35-130	
2-Nitroaniline	ug/L	100	80.2	80	37-130	
2-Nitrophenol	ug/L	50	38.7	77	32-130	
3&4-Methylphenol(m&p Cresol)	ug/L	50	36.9	74	34-130	
3,3'-Dichlorobenzidine	ug/L	100	92.0	92	34-136	
3-Nitroaniline	ug/L	100	96.7	97	37-138	
4,6-Dinitro-2-methylphenol	ug/L	100	92.9	93	21-157	
4-Bromophenylphenyl ether	ug/L	50	46.4	93	38-130	
4-Chloro-3-methylphenol	ug/L	100	83.1	83	37-130	
4-Chloroaniline	ug/L	100	86.6	87	38-130	
4-Chlorophenylphenyl ether	ug/L	50	42.5	85	33-130	
4-Nitroaniline	ug/L	100	93.5	94	42-137	
4-Nitrophenol	ug/L	250	117	47	10-130	
Acenaphthene	ug/L	50	44.8	90	33-130	
Acenaphthylene	ug/L	50	44.5	89	35-130	
Aniline	ug/L	50	33.7	67	22-130	
Anthracene	ug/L	50	43.6	87	48-130	
Benzo(a)anthracene	ug/L	50	47.0	94	48-137	
Benzo(a)pyrene	ug/L	50	49.0	98	49-138	
Benzo(b)fluoranthene	ug/L	50	50.2	100	52-138	
Benzo(g,h,i)perylene	ug/L	50	50.0	100	48-140	
Benzo(k)fluoranthene	ug/L	50	51.1	102	48-139	
Benzoic Acid	ug/L	250	120	48	10-130	
Benzyl alcohol	ug/L	100	78.3	78	35-130	
bis(2-Chloroethoxy)methane	ug/L	50	40.3	81	34-130	
bis(2-Chloroethyl) ether	ug/L	50	36.2	72	36-130	
bis(2-Ethylhexyl)phthalate	ug/L	50	51.0	102	32-165	
Butylbenzylphthalate	ug/L	50	51.1	102	34-161	
Chrysene	ug/L	50	47.6	95	47-131	
Di-n-butylphthalate	ug/L	50	46.6	93	39-144	
Di-n-octylphthalate	ug/L	50	50.0	100	30-170	
Dibenz(a,h)anthracene	ug/L	50	49.9	100	49-138	
Dibenzofuran	ug/L	50	44.7	89	33-130	
Diethylphthalate	ug/L	50	45.6	91	38-131	
Dimethylphthalate	ug/L	50	45.1	90	37-130	
Fluoranthene	ug/L	50	48.0	96	46-137	
Fluorene	ug/L	50	45.8	92	37-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

LABORATORY CONTROL SAMPLE: 3759572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	50	24.0	48	11-130	
Hexachlorobenzene	ug/L	50	45.6	91	38-130	
Hexachlorocyclopentadiene	ug/L	50	30.5	61	10-130	
Hexachloroethane	ug/L	50	18.6	37	14-130	
Indeno(1,2,3-cd)pyrene	ug/L	50	51.0	102	41-130	
Isophorone	ug/L	50	42.8	86	33-130	
N-Nitroso-di-n-propylamine	ug/L	50	40.1	80	36-130	
N-Nitrosodimethylamine	ug/L	50	31.5	63	34-130	
N-Nitrosodiphenylamine	ug/L	50	49.4	99	37-130	
Naphthalene	ug/L	50	34.7	69	30-130	
Nitrobenzene	ug/L	50	35.9	72	36-130	
Pentachlorophenol	ug/L	100	91.1	91	23-149	
Phenanthrene	ug/L	50	48.7	97	44-130	
Phenol	ug/L	50	26.9	54	18-130	
Pyrene	ug/L	50	50.8	102	47-134	
2,4,6-Tribromophenol (S)	%			109	10-144	
2-Fluorobiphenyl (S)	%			86	10-130	
2-Fluorophenol (S)	%			64	10-130	
Nitrobenzene-d5 (S)	%			79	10-144	
Phenol-d6 (S)	%			56	10-130	
Terphenyl-d14 (S)	%			109	34-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3759573 3759574

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92613441020 Result	Spike Conc.	Spike Conc.	Conc.							
1,2,4-Trichlorobenzene	ug/L	ND	50	50	50	10.8	9.8J	22	20	10-130	30	
1,2-Dichlorobenzene	ug/L	ND	50	50	50	6.1J	6.2J	12	12	10-130	30	
1,3-Dichlorobenzene	ug/L	ND	50	50	50	3.3J	3.6J	7	7	10-130	30	M1
1,4-Dichlorobenzene	ug/L	ND	50	50	50	4.4J	4.4J	9	9	10-130	30	M1
1-Methylnaphthalene	ug/L	ND	50	50	50	22.0	21.8	44	44	10-130	1	30
2,2'-Oxybis(1-chloropropane)	ug/L	ND	50	50	50	16.9	18.1	34	36	12-142	7	30
2,4,5-Trichlorophenol	ug/L	ND	50	50	50	21.7	26.3	43	53	10-143	19	30
2,4,6-Trichlorophenol	ug/L	ND	50	50	50	13.6	16.6	27	33	10-147	20	30
2,4-Dichlorophenol	ug/L	ND	50	50	50	25.6	27.4	51	55	10-138	7	30
2,4-Dimethylphenol	ug/L	ND	50	50	50	40.3	39.5	81	79	25-130	2	30
2,4-Dinitrophenol	ug/L	ND	250	250	250	27.7J	28.4J	11	11	10-165	30	
2,4-Dinitrotoluene	ug/L	ND	50	50	50	36.4	41.1	73	82	29-148	12	30
2,6-Dinitrotoluene	ug/L	ND	50	50	50	38.2	40.1	76	80	26-146	5	30
2-Chloronaphthalene	ug/L	ND	50	50	50	25.5	26.4	51	53	11-130	3	30
2-Chlorophenol	ug/L	ND	50	50	50	18.8	19.7	38	39	10-133	5	30
2-Methylnaphthalene	ug/L	ND	50	50	50	20.9	21.0	42	42	13-130	1	30
2-Methylphenol(o-Cresol)	ug/L	ND	50	50	50	26.0	26.1	52	52	20-130	0	30
2-Nitroaniline	ug/L	ND	100	100	100	57.1	62.9	57	63	24-136	10	30

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		3759573		3759574							
Parameter	Units	92613441020	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
2-Nitrophenol	ug/L	ND	50	50	24.3	26.3	49	53	10-153	8	30 v1
3&4-Methylphenol(m&p Cresol)	ug/L	ND	50	50	28.2	26.8	56	54	16-130	5	30
3,3'-Dichlorobenzidine	ug/L	ND	100	100	50.0	58.5	50	58	10-153	16	30
3-Nitroaniline	ug/L	ND	100	100	44.3	46.3	44	46	22-151	4	30
4,6-Dinitro-2-methylphenol	ug/L	ND	100	100	12.7J	14.7J	13	15	10-180		30
4-Bromophenylphenyl ether	ug/L	ND	50	50	35.5	40.9	71	82	25-130	14	30
4-Chloro-3-methylphenol	ug/L	ND	100	100	66.5	72.5	66	73	25-133	9	30
4-Chloroaniline	ug/L	ND	100	100	45.3	46.5	45	46	14-132	2	30
4-Chlorophenylphenyl ether	ug/L	ND	50	50	31.1	35.3	62	71	19-130	12	30
4-Nitroaniline	ug/L	ND	100	100	37.6	38.1	38	38	29-150	1	30
4-Nitrophenol	ug/L	ND	250	250	6.6J	12.4J	3	5	10-130		30 M1
Acenaphthene	ug/L	ND	50	50	28.1	30.2	56	60	16-130	7	30
Acenaphthylene	ug/L	ND	50	50	28.9	30.4	58	61	15-137	5	30
Aniline	ug/L	ND	50	50	18.9	18.7	38	37	10-130	1	30
Anthracene	ug/L	ND	50	50	31.8	36.9	64	74	37-136	15	30
Benzo(a)anthracene	ug/L	ND	50	50	39.0	47.4	78	95	40-145	19	30
Benzo(a)pyrene	ug/L	ND	50	50	39.9	49.5	80	99	41-146	21	30
Benzo(b)fluoranthene	ug/L	ND	50	50	40.1	48.9	80	98	39-151	20	30
Benzo(g,h,i)perylene	ug/L	ND	50	50	42.9	50.8	86	102	40-147	17	30
Benzo(k)fluoranthene	ug/L	ND	50	50	39.5	47.5	79	95	40-146	18	30
Benzoic Acid	ug/L	ND	250	250	ND	ND	0	0	10-130		30 M1
Benzyl alcohol	ug/L	ND	100	100	57.2	53.7	57	54	25-130	6	30
bis(2-Chloroethoxy)methane	ug/L	ND	50	50	27.4	27.2	55	54	23-130	1	30
bis(2-Chloroethyl) ether	ug/L	ND	50	50	21.9	23.1	44	46	25-130	5	30
bis(2-Ethylhexyl)phthalate	ug/L	ND	50	50	44.0	58.1	88	116	28-166	28	30
Butylbenzylphthalate	ug/L	ND	50	50	48.5	60.8	97	122	33-165	23	30 v1
Chrysene	ug/L	ND	50	50	38.0	46.0	76	92	38-141	19	30
Di-n-butylphthalate	ug/L	ND	50	50	40.8	50.1	82	100	32-153	20	30
Di-n-octylphthalate	ug/L	ND	50	50	39.5	52.5	79	105	30-175	28	30
Dibenz(a,h)anthracene	ug/L	ND	50	50	40.5	51.2	81	102	39-148	24	30
Dibenzofuran	ug/L	ND	50	50	30.4	33.1	61	66	20-130	8	30
Diethylphthalate	ug/L	ND	50	50	34.5	39.6	69	79	28-142	14	30
Dimethylphthalate	ug/L	ND	50	50	33.8	36.9	68	74	26-136	9	30
Fluoranthene	ug/L	ND	50	50	36.6	44.6	73	89	39-143	20	30
Fluorene	ug/L	ND	50	50	31.2	34.4	62	69	24-132	10	30
Hexachloro-1,3-butadiene	ug/L	ND	50	50	6.5J	5.6J	13	11	10-130		30
Hexachlorobenzene	ug/L	ND	50	50	33.5	39.9	67	80	29-130	18	30
Hexachlorocyclopentadiene	ug/L	ND	50	50	12.0	12.3	24	25	10-130	2	30
Hexachloroethane	ug/L	ND	50	50	3.0J	2.6J	6	5	10-130		30 M1
Indeno(1,2,3-cd)pyrene	ug/L	ND	50	50	43.7	50.6	87	101	39-148	15	30
Isophorone	ug/L	ND	50	50	32.9	32.0	66	64	23-130	3	30
N-Nitroso-di-n-propylamine	ug/L	ND	50	50	29.7	28.2	59	56	25-130	5	30
N-Nitrosodimethylamine	ug/L	ND	50	50	22.7	22.4	45	45	22-130	1	30
N-Nitrosodiphenylamine	ug/L	ND	50	50	35.2	41.9	70	84	26-134	17	30

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

Parameter	Units	92613441020		3759573		3759574		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Naphthalene	ug/L	ND	50	50	13.3	13.6	27	27	14-130	2	30			
Nitrobenzene	ug/L	ND	50	50	29.8	31.8	60	64	25-130	7	30			
Pentachlorophenol	ug/L	ND	100	100	4.5J	4.3J	5	4	10-175		30	M1		
Phenanthrene	ug/L	ND	50	50	34.6	40.2	69	80	36-133	15	30			
Phenol	ug/L	ND	50	50	18.3	17.4	37	35	10-130	5	30			
Pyrene	ug/L	ND	50	50	42.1	51.5	84	103	40-143	20	30			
2,4,6-Tribromophenol (S)	%						39	49	10-144					
2-Fluorobiphenyl (S)	%						41	45	10-130					
2-Fluorophenol (S)	%						28	28	10-130					
Nitrobenzene-d5 (S)	%						54	53	10-144					
Phenol-d6 (S)	%						37	35	10-130					
Terphenyl-d14 (S)	%						89	115	34-163					

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

QC Batch: 1921366 Analysis Method: EPA 7199  
QC Batch Method: 7199 Analysis Description: Wet Chemistry 7199  
Laboratory: Pace National - Mt. Juliet  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

METHOD BLANK: R3834970-1 Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	ug/L	ND	0.500	0.150	09/04/22 12:45	

LABORATORY CONTROL SAMPLE: R3834970-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	ug/L	2.00	2.02	101	90.0-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3834970-3 R3834970-4

Parameter	Units	L1530846-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	ug/L	ND	50.0	50.0	ND	ND	0.00	0.00	90.0-110	0.00	20	ML

MATRIX SPIKE SAMPLE: R3834970-7

Parameter	Units	L1532186-06 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	ug/L	ND	50.0	49.7	99.4	90.0-110	

SAMPLE DUPLICATE: R3834970-5

Parameter	Units	L1530849-01 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	ug/L	ND	ND	0.00	20	

SAMPLE DUPLICATE: R3834970-6

Parameter	Units	L1532186-05 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	ug/L	ND	ND	0.00	20	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

QC Batch: 721448 Analysis Method: SM 2540C-2015  
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

METHOD BLANK: 3758975 Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/04/22 12:11	

LABORATORY CONTROL SAMPLE: 3758976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	251	234	93	90-110	

SAMPLE DUPLICATE: 3758977

Parameter	Units	92623351001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	774	768	1	25	

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### QUALITY CONTROL DATA

Project: TCH-009  
Pace Project No.: 92623351

QC Batch: 721102      Analysis Method: EPA 9056A  
QC Batch Method: EPA 9056A      Analysis Description: 9056 IC Anions  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

METHOD BLANK: 3757571      Matrix: Water  
Associated Lab Samples: 92623351001, 92623351002, 92623351003, 92623351004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/02/22 11:55	
Fluoride	mg/L	ND	0.10	0.050	09/02/22 11:55	
Nitrate as N	mg/L	ND	0.10	0.060	09/02/22 11:55	
Sulfate	mg/L	ND	1.0	0.50	09/02/22 11:55	

LABORATORY CONTROL SAMPLE: 3757572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.1	96	90-110	
Fluoride	mg/L	2.5	2.3	91	90-110	
Nitrate as N	mg/L	2.5	2.3	93	90-110	
Sulfate	mg/L	50	47.4	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3757573      3757574

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92623351004 Result	Spike Conc.	Spike Conc.	Result						
Chloride	mg/L	35.4	50	50	83.3	86.6	96	102	90-110	4	10
Fluoride	mg/L	0.14	2.5	2.5	2.5	2.6	92	100	90-110	7	10
Nitrate as N	mg/L	ND	2.5	2.5	2.3	2.5	93	100	90-110	7	10
Sulfate	mg/L	15.4	50	50	63.3	66.6	96	102	90-110	5	10

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## QUALIFIERS

Project: TCH-009  
Pace Project No.: 92623351

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

ML Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

T3 Insufficient sample received from client to perform the analysis per EPA method requirements.

v1 The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TCH-009  
Pace Project No.: 92623351

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92623351001	MW-1A	EPA 3010A	721411	EPA 6010D	721431
92623351002	MW-7	EPA 3010A	721411	EPA 6010D	721431
92623351003	MW-8	EPA 3010A	721411	EPA 6010D	721431
92623351004	GW-DUP	EPA 3010A	721411	EPA 6010D	721431
92623351001	MW-1A	EPA 3010A	721981	EPA 6020B	722057
92623351002	MW-7	EPA 3010A	721981	EPA 6020B	722057
92623351003	MW-8	EPA 3010A	721981	EPA 6020B	722057
92623351004	GW-DUP	EPA 3010A	721981	EPA 6020B	722057
92623351001	MW-1A	EPA 7470A	721990	EPA 7470A	722122
92623351002	MW-7	EPA 7470A	721990	EPA 7470A	722122
92623351003	MW-8	EPA 7470A	721990	EPA 7470A	722122
92623351004	GW-DUP	EPA 7470A	721990	EPA 7470A	722122
92623351001	MW-1A	EPA 3510C	721579	EPA 8270E	721754
92623351002	MW-7	EPA 3510C	721579	EPA 8270E	721754
92623351003	MW-8	EPA 3510C	721579	EPA 8270E	721754
92623351004	GW-DUP	EPA 3510C	721579	EPA 8270E	721754
92623351001	MW-1A	EPA 8260D	721650		
92623351002	MW-7	EPA 8260D	721650		
92623351003	MW-8	EPA 8260D	721650		
92623351004	GW-DUP	EPA 8260D	721650		
92623351005	Trip Blank-2	EPA 8260D	721642		
92623351001	MW-1A	EPA 8260D Mod.	721336		
92623351002	MW-7	EPA 8260D Mod.	721336		
92623351003	MW-8	EPA 8260D Mod.	721336		
92623351004	GW-DUP	EPA 8260D Mod.	721336		
92623351005	Trip Blank-2	EPA 8260D Mod.	721336		
92623351001	MW-1A	7199	1921366	EPA 7199	1921366
92623351002	MW-7	7199	1921366	EPA 7199	1921366
92623351003	MW-8	7199	1921366	EPA 7199	1921366
92623351004	GW-DUP	7199	1921366	EPA 7199	1921366
92623351001	MW-1A	SM 2540C-2015	721448		
92623351002	MW-7	SM 2540C-2015	721448		
92623351003	MW-8	SM 2540C-2015	721448		
92623351004	GW-DUP	SM 2540C-2015	721448		
92623351001	MW-1A	EPA 9056A	721102		
92623351002	MW-7	EPA 9056A	721102		
92623351003	MW-8	EPA 9056A	721102		
92623351004	GW-DUP	EPA 9056A	721102		

### REPORT OF LABORATORY ANALYSIS

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DC# Title: ENV-FRM-HUN1-0084 v01\_Tech Spec Sample Condition  
Upon Receipt

Effective Date: 06/12/2022

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

Hart & Hickman

Project #:

92623351

Courier:

Commercial

Fed Ex

UPS

USPS

Client

Pace

Other:

Carrier Tracking Number:

Custody Seal Present?

Yes

No

Seals Intact?

Yes

No

Date/Initials Person Examining Contents: 9/1/22  
BMB

Packing Material:

Bubble Wrap

Bubble Bags

None

Other

Biological Tissue Frozen?

Yes

No

N/A

Thermometer:

IR Gun ID:

91005

Type of Ice:

Wet

Blue

None

Cooler Temp (°C): 3.5

Correction Factor: Add / Subtract (°C)

0.0

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Corrected Cooler Temp (°C): 3.5

USDA Regulated Soil ( N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Yes  No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

Comments/Discrepancy:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>Hex-Chrome</u>
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-includes Date/Time/ID/Analysis Matrix:	<u>WT</u>	
Headspace in VOA Vials (>5-6mm)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Trip Blank Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Temp Log: Temp must be maintained at <6 C during login, record temp every 20 minutes.

Time opened: \_\_\_\_\_ Temp: \_\_\_\_\_

Time: \_\_\_\_\_ put in cooler

Time: \_\_\_\_\_ Temp: \_\_\_\_\_

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Project Manager SCURF Review: \_\_\_\_\_

Date: \_\_\_\_\_

Project Manager SRF Review: \_\_\_\_\_

Date: \_\_\_\_\_



DC# Title: ENV-FRM-HUN1-0084 v01\_Tech Spec Sample Condition  
Upon Receipt

Effective Date: 06/12/2022

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

92623351

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRG/8015 (water) DOC, L/Hg

\*\*Bottom half of box is to list number of bottles

\*\*\*Check all unpreserved Nitrates for chlorine

Item#	Description	1	2	3	4	5	6	7	8	9	10	11	12
BP4U-125 mL Plastic Unpreserved (N/A) (C-)													
BP9U-250 mL Plastic Unpreserved (N/A)													
BP2U-500 mL Plastic Unpreserved (N/A)													
BP1U-1 liter Plastic Unpreserved (N/A)													
BP4S-125 mL Plastic H2SO4 (pH < 2) (C-)													
BP3N-250 mL plastic HNO3 (pH < 2)													
BP4Z-125 mL Plastic 2N Acetate & NaOH (>9)													
BP4B-125 mL Plastic NaOH (pH > 12) (C-)													
WGFU-Wide-mouthed glass jar Unpreserved													
AG1U-1 liter Amber Unpreserved (N/A) (C-)													
AG1H-1 liter Amber HCl (pH < 2)													
AG3U-250 mL Amber Unpreserved (N/A) (C-)													
AG1S-1 liter Amber H2SO4 (pH < 2)													
AG3S-250 mL Amber H2SO4 (pH < 2)													
DG94-250 mL Amber NH4Cl (N/A)(C-)													
DG9H-40 mL VOA HCl (N/A)													
V99T-40 mL VOA Na2S2O3 (N/A)													
V99U-40 mL VOA Unpreserved (N/A)													
DG9V-40 mL VOA H3PO4 (N/A)													
DG9S-40 mL VOA H2SO4 (N/A)													
V/GK (3 vials per kit)-VPH/Gas kit (N/A)													
SP5T-125 mL Sterile Plastic (N/A - lab)													
SP2T-250 mL Sterile Plastic (N/A - lab)													
Hex-Chrome													
BP9R-250 mL Plastic (NH4)2SO4 (9.3-9.7)													
AG0U-100 mL Amber Unpreserved (N/A) (C-)													
V99U-20 mL Scintillation vials (N/A)													
DG9U-40 mL Amber Unpreserved vials (N/A)													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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

**Page**

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Page Terms and Conditions found at <https://info.pacelabs.com/hdfs/pas-standard-terms.pdf>.

**CHAIN-OF-CUSTODY / Analytical Request Document**

Section A Required Client Information: **Company:** Hart & Hickman Raleigh **Address:** 3921 Sunset Ridge Rd **City:** Raleigh, NC 27607 **Phone:** wjllie@hartnickman.com **Requested Due Date:** N/A

Section B Required Project Information: **Report To:** Jared Wilke **Copy To:** [ ] **Project Name:** TOH-2019 Water **Requested Due Date:** N/A

Section C Invoice Information: **Attention:** [ ] **Company Name:** [ ] **Address:** [ ] **City/State/Zip:** [ ] **Company Phone:** [ ] **Company Fax:** [ ] **Project Manager:** Kevin Godwin **Project Profile #:** 48487-7

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, -, /)	MATRIX Domestic Water, Well Water, Private Well, Pond, Soil/Solid, Oil, W/PA, AW, Other, Tissue	CODE DW, WT, WW, P, SL, WP, AR, TS	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analytes Test	Residual Chlorine (Y/N)								
				DATE	TIME	DATE	TIME			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other			8260 SIM Trip Blank	8260 Trip Blank	8260	8260 SIM 1,4-Dioxane	8270	6020 Metals	6010/7470	9056
1	MW-14			8/17/22	1630			13	4		2									X	X	X	X	X			92623351
2	MW-7			8/17/22	2005			1	1		1									X	X	X	X	X			
3	MW-8				1800			1	1		1									X	X	X	X	X			
4	GW-DUP							2	1		1									X	X	X	X	X			
5	Trip Blank-2							2	2		2									XX							

ADDITIONAL COMMENTS	DATE COLLECTED BY	DATE COLLECTED	DATE	TEMP IN C	RECEIVED ON ICE (Y/N)	CUSTODY SEALED COOLER (Y/N)	SAMPLES INTACT (Y/N)
	Jared Wilke	8/17/22	9/1/22	9.00	Y	N	V

9056 Anchor: Chloride, Florida, Miralae, Suite  
6010 Metals: Ba, Mn, Sr  
6020 Metals: As, Ba, Cd, Cr, Co, Cu, Ni, Ni, Se

See select list per email from Jared Wilke

Sampler Name and Signature: Sean Herman  
Signature: [Signature]  
Date Signed: 8/13/22

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

**Hart & Hickman**

**TCH-009, Chapel Hill, NC**

**SGS Job Number: JD51423R**

**Sampling Dates: 09/01/22 - 09/02/22**

### Report to:

**Hart & Hickman**  
**3921 Sunset Ridge Road Suite 301**  
**Raleigh, NC 27607**  
**[jwilke@harthickman.com](mailto:jwilke@harthickman.com); [jballard@harthickman.com](mailto:jballard@harthickman.com)**  
**ATTN: Jared Wilke**

**Total number of pages in report: 59**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in blue ink, appearing to read "D. Chastain".

**David Chastain**  
**General Manager**

**Client Service contact: Kelly Ramos 732-329-0200**

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA(68-00408), RI, SC, TX, UT, VA, WV

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Test results relate only to samples analyzed.

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1

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3

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## Sample Summary

Hart & Hickman

**Job No:** JD51423R

TCH-009, Chapel Hill, NC

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
---------------	----------------	---------	----------	-------------	------	------------------

This report contains results reported as ND = Not detected. The following applies:  
 Organics ND = Not detected above the MDL

JD51423-1R	09/02/22	13:10 SH	09/09/22	AIR	Soil Vapor Comp.	SG-1
JD51423-2R	09/01/22	13:14 SH	09/09/22	AIR	Soil Vapor Comp.	SG-2
JD51423-3R	09/01/22	14:08 SH	09/09/22	AIR	Soil Vapor Comp.	SG-3
JD51423-4R	09/01/22	16:49 SH	09/09/22	AIR	Soil Vapor Comp.	SG-4
JD51423-5R	09/02/22	08:31 SH	09/09/22	AIR	Soil Vapor Comp.	SG-5
JD51423-6R	09/01/22	16:12 SH	09/09/22	AIR	Soil Vapor Comp.	SG-6
JD51423-7R	09/01/22	15:19 SH	09/09/22	AIR	Soil Vapor Comp.	SG-7
JD51423-8R	09/02/22	09:42 SH	09/09/22	AIR	Soil Vapor Comp.	SSV-1
JD51423-9R	09/02/22	10:09 SH	09/09/22	AIR	Soil Vapor Comp.	SSV-2
JD51423-10R	09/01/22	00:00 SH	09/09/22	AIR	Soil Vapor Comp.	SG-DUP

## Summary of Hits

**Job Number:** JD51423R  
**Account:** Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Collected:** 09/01/22 thru 09/02/22

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

**JD51423-1R SG-1**

Acetone (2-Propanone)	20.6	0.80	0.58	ppbv	TO-15
Benzene	0.63 J	0.80	0.25	ppbv	TO-15
Carbon disulfide	0.69 J	0.80	0.18	ppbv	TO-15
Chloromethane	0.64 J	0.80	0.36	ppbv	TO-15
Cyclohexane	5.3	0.80	0.44	ppbv	TO-15
Dichlorodifluoromethane	0.52 J	0.80	0.13	ppbv	TO-15
Ethyl Acetate	146	0.80	0.42	ppbv	TO-15
Methylene chloride	1.7	0.80	0.22	ppbv	TO-15
Methyl ethyl ketone	2.2	0.80	0.44	ppbv	TO-15
Propylene	1.9 J	2.0	0.57	ppbv	TO-15
1,2,4-Trimethylbenzene	0.50 J	0.80	0.35	ppbv	TO-15
Tetrachloroethylene	0.19	0.16	0.056	ppbv	TO-15
Tetrahydrofuran	1.0	0.80	0.36	ppbv	TO-15
Toluene	3.3	0.80	0.23	ppbv	TO-15
Trichloroethylene	1.3	0.16	0.076	ppbv	TO-15
Trichlorofluoromethane	0.54 J	0.80	0.14	ppbv	TO-15
m,p-Xylene	0.67 J	0.80	0.56	ppbv	TO-15
Xylenes (total)	0.67 J	0.80	0.31	ppbv	TO-15
Acetone (2-Propanone)	48.9	1.9	1.4	ug/m3	TO-15
Benzene	2.0 J	2.6	0.80	ug/m3	TO-15
Carbon disulfide	2.1 J	2.5	0.56	ug/m3	TO-15
Chloromethane	1.3 J	1.7	0.74	ug/m3	TO-15
Cyclohexane	18	2.8	1.5	ug/m3	TO-15
Dichlorodifluoromethane	2.6 J	4.0	0.64	ug/m3	TO-15
Ethyl Acetate	525	2.9	1.5	ug/m3	TO-15
Methylene chloride	5.9	2.8	0.76	ug/m3	TO-15
Methyl ethyl ketone	6.5	2.4	1.3	ug/m3	TO-15
Propylene	3.3 J	3.4	0.98	ug/m3	TO-15
1,2,4-Trimethylbenzene	2.5 J	3.9	1.7	ug/m3	TO-15
Tetrachloroethylene	1.3	1.1	0.38	ug/m3	TO-15
Tetrahydrofuran	2.9	2.4	1.1	ug/m3	TO-15
Toluene	12	3.0	0.87	ug/m3	TO-15
Trichloroethylene	7.0	0.86	0.41	ug/m3	TO-15
Trichlorofluoromethane	3.0 J	4.5	0.79	ug/m3	TO-15
m,p-Xylene	2.9 J	3.5	2.4	ug/m3	TO-15
Xylenes (total)	2.9 J	3.5	1.3	ug/m3	TO-15

**JD51423-2R SG-2**

Acetone (2-Propanone)	5.8	0.80	0.58	ppbv	TO-15
Carbon disulfide	0.53 J	0.80	0.18	ppbv	TO-15
Cyclohexane	9.7	0.80	0.44	ppbv	TO-15
Ethylbenzene	0.40 J	0.80	0.24	ppbv	TO-15

## Summary of Hits

**Job Number:** JD51423R  
**Account:** Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Collected:** 09/01/22 thru 09/02/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Ethyl Acetate		7.0	0.80	0.42	ppbv	TO-15
Isopropyl Alcohol		44.1	0.80	0.56	ppbv	TO-15
Methylene chloride		1.3	0.80	0.22	ppbv	TO-15
Methyl ethyl ketone		0.81	0.80	0.44	ppbv	TO-15
Propylene		1.3 J	2.0	0.57	ppbv	TO-15
1,2,4-Trimethylbenzene		0.62 J	0.80	0.35	ppbv	TO-15
Tetrachloroethylene		0.61	0.16	0.056	ppbv	TO-15
Tetrahydrofuran		0.61 J	0.80	0.36	ppbv	TO-15
Toluene		1.4	0.80	0.23	ppbv	TO-15
Trichloroethylene		3.6	0.16	0.076	ppbv	TO-15
Trichlorofluoromethane		0.56 J	0.80	0.14	ppbv	TO-15
m,p-Xylene		1.4	0.80	0.56	ppbv	TO-15
o-Xylene		0.75 J	0.80	0.31	ppbv	TO-15
Xylenes (total)		2.1	0.80	0.31	ppbv	TO-15
Acetone (2-Propanone)		14	1.9	1.4	ug/m3	TO-15
Carbon disulfide		1.7 J	2.5	0.56	ug/m3	TO-15
Cyclohexane		33	2.8	1.5	ug/m3	TO-15
Ethylbenzene		1.7 J	3.5	1.0	ug/m3	TO-15
Ethyl Acetate		25	2.9	1.5	ug/m3	TO-15
Isopropyl Alcohol		108	2.0	1.4	ug/m3	TO-15
Methylene chloride		4.5	2.8	0.76	ug/m3	TO-15
Methyl ethyl ketone		2.4	2.4	1.3	ug/m3	TO-15
Propylene		2.2 J	3.4	0.98	ug/m3	TO-15
1,2,4-Trimethylbenzene		3.0 J	3.9	1.7	ug/m3	TO-15
Tetrachloroethylene		4.1	1.1	0.38	ug/m3	TO-15
Tetrahydrofuran		1.8 J	2.4	1.1	ug/m3	TO-15
Toluene		5.3	3.0	0.87	ug/m3	TO-15
Trichloroethylene		19	0.86	0.41	ug/m3	TO-15
Trichlorofluoromethane		3.1 J	4.5	0.79	ug/m3	TO-15
m,p-Xylene		6.1	3.5	2.4	ug/m3	TO-15
o-Xylene		3.3 J	3.5	1.3	ug/m3	TO-15
Xylenes (total)		9.1	3.5	1.3	ug/m3	TO-15

### JD51423-3R SG-3

Acetone (2-Propanone)		63.8	0.80	0.58	ppbv	TO-15
Benzene		0.97	0.80	0.25	ppbv	TO-15
Bromomethane		0.77 J	0.80	0.28	ppbv	TO-15
Carbon disulfide		39.7	0.80	0.18	ppbv	TO-15
Chloroform		2.7	0.80	0.15	ppbv	TO-15
Chloromethane		0.69 J	0.80	0.36	ppbv	TO-15
Cyclohexane		6.9	0.80	0.44	ppbv	TO-15
cis-1,2-Dichloroethylene		1.1	0.80	0.31	ppbv	TO-15
Ethylbenzene		4.1	0.80	0.24	ppbv	TO-15
Ethyl Acetate		1.5	0.80	0.42	ppbv	TO-15



## Summary of Hits

**Job Number:** JD51423R  
**Account:** Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Collected:** 09/01/22 thru 09/02/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
4-Ethyltoluene		0.42 J	0.80	0.38	ppbv	TO-15
Heptane		1.4	0.80	0.37	ppbv	TO-15
Hexane		3.5	0.80	0.45	ppbv	TO-15
2-Hexanone		2.2	0.80	0.58	ppbv	TO-15
Isopropyl Alcohol		8.8	0.80	0.56	ppbv	TO-15
Methylene chloride		1.4	0.80	0.22	ppbv	TO-15
Methyl ethyl ketone		12.2	0.80	0.44	ppbv	TO-15
Methyl Isobutyl Ketone		0.66 J	0.80	0.29	ppbv	TO-15
Propylene		129	2.0	0.57	ppbv	TO-15
Styrene		0.51 J	0.80	0.47	ppbv	TO-15
1,2,4-Trimethylbenzene		1.4	0.80	0.35	ppbv	TO-15
1,3,5-Trimethylbenzene		0.55 J	0.80	0.32	ppbv	TO-15
Tetrachloroethylene		1.1	0.16	0.056	ppbv	TO-15
Tetrahydrofuran		1.0	0.80	0.36	ppbv	TO-15
Toluene		32.8	0.80	0.23	ppbv	TO-15
Trichloroethylene		7.3	0.16	0.076	ppbv	TO-15
Trichlorofluoromethane		0.54 J	0.80	0.14	ppbv	TO-15
m,p-Xylene		8.6	0.80	0.56	ppbv	TO-15
o-Xylene		2.2	0.80	0.31	ppbv	TO-15
Xylenes (total)		10.8	0.80	0.31	ppbv	TO-15
Acetone (2-Propanone)		152	1.9	1.4	ug/m3	TO-15
Benzene		3.1	2.6	0.80	ug/m3	TO-15
Bromomethane		3.0 J	3.1	1.1	ug/m3	TO-15
Carbon disulfide		124	2.5	0.56	ug/m3	TO-15
Chloroform		13	3.9	0.73	ug/m3	TO-15
Chloromethane		1.4 J	1.7	0.74	ug/m3	TO-15
Cyclohexane		24	2.8	1.5	ug/m3	TO-15
cis-1,2-Dichloroethylene		4.4	3.2	1.2	ug/m3	TO-15
Ethylbenzene		18	3.5	1.0	ug/m3	TO-15
Ethyl Acetate		5.4	2.9	1.5	ug/m3	TO-15
4-Ethyltoluene		2.1 J	3.9	1.9	ug/m3	TO-15
Heptane		5.7	3.3	1.5	ug/m3	TO-15
Hexane		12	2.8	1.6	ug/m3	TO-15
2-Hexanone		9.0	3.3	2.4	ug/m3	TO-15
Isopropyl Alcohol		22	2.0	1.4	ug/m3	TO-15
Methylene chloride		4.9	2.8	0.76	ug/m3	TO-15
Methyl ethyl ketone		36.0	2.4	1.3	ug/m3	TO-15
Methyl Isobutyl Ketone		2.7 J	3.3	1.2	ug/m3	TO-15
Propylene		222	3.4	0.98	ug/m3	TO-15
Styrene		2.2 J	3.4	2.0	ug/m3	TO-15
1,2,4-Trimethylbenzene		6.9	3.9	1.7	ug/m3	TO-15
1,3,5-Trimethylbenzene		2.7 J	3.9	1.6	ug/m3	TO-15
Tetrachloroethylene		7.5	1.1	0.38	ug/m3	TO-15
Tetrahydrofuran		2.9	2.4	1.1	ug/m3	TO-15
Toluene		124	3.0	0.87	ug/m3	TO-15

## Summary of Hits

**Job Number:** JD51423R  
**Account:** Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Collected:** 09/01/22 thru 09/02/22

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Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Trichloroethylene		39	0.86	0.41	ug/m3	TO-15
Trichlorofluoromethane		3.0 J	4.5	0.79	ug/m3	TO-15
m,p-Xylene		37	3.5	2.4	ug/m3	TO-15
o-Xylene		9.6	3.5	1.3	ug/m3	TO-15
Xylenes (total)		46.9	3.5	1.3	ug/m3	TO-15

### JD51423-4R SG-4

Acetone (2-Propanone)		9.7	0.80	0.58	ppbv	TO-15
Cyclohexane		4.8	0.80	0.44	ppbv	TO-15
cis-1,2-Dichloroethylene		0.60 J	0.80	0.31	ppbv	TO-15
Ethyl Acetate		1.5	0.80	0.42	ppbv	TO-15
2-Hexanone		1.4	0.80	0.58	ppbv	TO-15
Isopropyl Alcohol		10.6	0.80	0.56	ppbv	TO-15
Methylene chloride		1.0	0.80	0.22	ppbv	TO-15
Methyl ethyl ketone		1.4	0.80	0.44	ppbv	TO-15
Propylene		1.5 J	2.0	0.57	ppbv	TO-15
Tetrachloroethylene		0.16	0.16	0.056	ppbv	TO-15
Trichloroethylene		2.0	0.16	0.076	ppbv	TO-15
Trichlorofluoromethane		0.44 J	0.80	0.14	ppbv	TO-15
Acetone (2-Propanone)		23	1.9	1.4	ug/m3	TO-15
Cyclohexane		17	2.8	1.5	ug/m3	TO-15
cis-1,2-Dichloroethylene		2.4 J	3.2	1.2	ug/m3	TO-15
Ethyl Acetate		5.4	2.9	1.5	ug/m3	TO-15
2-Hexanone		5.7	3.3	2.4	ug/m3	TO-15
Isopropyl Alcohol		26.1	2.0	1.4	ug/m3	TO-15
Methylene chloride		3.5	2.8	0.76	ug/m3	TO-15
Methyl ethyl ketone		4.1	2.4	1.3	ug/m3	TO-15
Propylene		2.6 J	3.4	0.98	ug/m3	TO-15
Tetrachloroethylene		1.1	1.1	0.38	ug/m3	TO-15
Trichloroethylene		11	0.86	0.41	ug/m3	TO-15
Trichlorofluoromethane		2.5 J	4.5	0.79	ug/m3	TO-15

### JD51423-5R SG-5

Acetone (2-Propanone)		6.1	0.80	0.58	ppbv	TO-15
Bromodichloromethane		0.42 J	0.80	0.12	ppbv	TO-15
Carbon disulfide		0.77 J	0.80	0.18	ppbv	TO-15
Chloroethane		0.39 J	0.80	0.27	ppbv	TO-15
Chloroform		5.1	0.80	0.15	ppbv	TO-15
Carbon tetrachloride		0.56 J	0.80	0.16	ppbv	TO-15
Cyclohexane		2.4	0.80	0.44	ppbv	TO-15
1,1-Dichloroethane		11.5	0.80	0.23	ppbv	TO-15
1,1-Dichloroethylene		1.7	0.80	0.24	ppbv	TO-15
1,2-Dichloroethane		1.5	0.80	0.28	ppbv	TO-15

### Summary of Hits

**Job Number:** JD51423R  
**Account:** Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Collected:** 09/01/22 thru 09/02/22

<b>Lab Sample ID Analyte</b>	<b>Client Sample ID</b>	<b>Result/ Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Method</b>
cis-1,2-Dichloroethylene		87.5	0.80	0.31	ppbv	TO-15
Ethyl Acetate		34.5	0.80	0.42	ppbv	TO-15
Freon 113		1.1	0.80	0.12	ppbv	TO-15
Isopropyl Alcohol		52.9	0.80	0.56	ppbv	TO-15
Methylene chloride		3.0	0.80	0.22	ppbv	TO-15
Methyl ethyl ketone		0.44 J	0.80	0.44	ppbv	TO-15
Propylene		1.0 J	2.0	0.57	ppbv	TO-15
1,1,1-Trichloroethane		38.8	0.80	0.15	ppbv	TO-15
Tetrachloroethylene		1.1	0.16	0.056	ppbv	TO-15
Tetrahydrofuran		1.0	0.80	0.36	ppbv	TO-15
Toluene		0.94	0.80	0.23	ppbv	TO-15
Trichloroethylene		1.3	0.16	0.076	ppbv	TO-15
Trichlorofluoromethane		0.44 J	0.80	0.14	ppbv	TO-15
Vinyl chloride		2.0	0.80	0.28	ppbv	TO-15
Acetone (2-Propanone)		14	1.9	1.4	ug/m3	TO-15
Bromodichloromethane		2.8 J	5.4	0.80	ug/m3	TO-15
Carbon disulfide		2.4 J	2.5	0.56	ug/m3	TO-15
Chloroethane		1.0 J	2.1	0.71	ug/m3	TO-15
Chloroform		25	3.9	0.73	ug/m3	TO-15
Carbon tetrachloride		3.5 J	5.0	1.0	ug/m3	TO-15
Cyclohexane		8.3	2.8	1.5	ug/m3	TO-15
1,1-Dichloroethane		46.5	3.2	0.93	ug/m3	TO-15
1,1-Dichloroethylene		6.7	3.2	0.95	ug/m3	TO-15
1,2-Dichloroethane		6.1	3.2	1.1	ug/m3	TO-15
cis-1,2-Dichloroethylene		347	3.2	1.2	ug/m3	TO-15
Ethyl Acetate		124	2.9	1.5	ug/m3	TO-15
Freon 113		8.4	6.1	0.92	ug/m3	TO-15
Isopropyl Alcohol		130	2.0	1.4	ug/m3	TO-15
Methylene chloride		10	2.8	0.76	ug/m3	TO-15
Methyl ethyl ketone		1.3 J	2.4	1.3	ug/m3	TO-15
Propylene		1.7 J	3.4	0.98	ug/m3	TO-15
1,1,1-Trichloroethane		212	4.4	0.82	ug/m3	TO-15
Tetrachloroethylene		7.5	1.1	0.38	ug/m3	TO-15
Tetrahydrofuran		2.9	2.4	1.1	ug/m3	TO-15
Toluene		3.5	3.0	0.87	ug/m3	TO-15
Trichloroethylene		7.0	0.86	0.41	ug/m3	TO-15
Trichlorofluoromethane		2.5 J	4.5	0.79	ug/m3	TO-15
Vinyl chloride		5.1	2.0	0.72	ug/m3	TO-15
<b>JD51423-6R     SG-6</b>						
Acetone (2-Propanone)		7.1	0.80	0.58	ppbv	TO-15
Bromodichloromethane		1.2	0.80	0.12	ppbv	TO-15
Carbon disulfide		1.7	0.80	0.18	ppbv	TO-15
Chloroform		9.2	0.80	0.15	ppbv	TO-15

## Summary of Hits

**Job Number:** JD51423R  
**Account:** Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Collected:** 09/01/22 thru 09/02/22

2

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Chloromethane	0.40 J	0.80	0.36	ppbv	TO-15
		Cyclohexane	7.5	0.80	0.44	ppbv	TO-15
		cis-1,2-Dichloroethylene	0.39 J	0.80	0.31	ppbv	TO-15
		Ethyl Acetate	2.5	0.80	0.42	ppbv	TO-15
		Hexane	1.3	0.80	0.45	ppbv	TO-15
		Isopropyl Alcohol	48.1	0.80	0.56	ppbv	TO-15
		Methyl ethyl ketone	1.5	0.80	0.44	ppbv	TO-15
		Methyl Isobutyl Ketone	0.70 J	0.80	0.29	ppbv	TO-15
		Propylene	2.2	2.0	0.57	ppbv	TO-15
		Tetrachloroethylene	12.0	0.16	0.056	ppbv	TO-15
		Toluene	1.5	0.80	0.23	ppbv	TO-15
		Trichloroethylene	0.39	0.16	0.076	ppbv	TO-15
		m,p-Xylene	0.76 J	0.80	0.56	ppbv	TO-15
		Xylenes (total)	0.76 J	0.80	0.31	ppbv	TO-15
		Acetone (2-Propanone)	17	1.9	1.4	ug/m3	TO-15
		Bromodichloromethane	8.0	5.4	0.80	ug/m3	TO-15
		Carbon disulfide	5.3	2.5	0.56	ug/m3	TO-15
		Chloroform	45	3.9	0.73	ug/m3	TO-15
		Chloromethane	0.83 J	1.7	0.74	ug/m3	TO-15
		Cyclohexane	26	2.8	1.5	ug/m3	TO-15
		cis-1,2-Dichloroethylene	1.5 J	3.2	1.2	ug/m3	TO-15
		Ethyl Acetate	9.0	2.9	1.5	ug/m3	TO-15
		Hexane	4.6	2.8	1.6	ug/m3	TO-15
		Isopropyl Alcohol	118	2.0	1.4	ug/m3	TO-15
		Methyl ethyl ketone	4.4	2.4	1.3	ug/m3	TO-15
		Methyl Isobutyl Ketone	2.9 J	3.3	1.2	ug/m3	TO-15
		Propylene	3.8	3.4	0.98	ug/m3	TO-15
		Tetrachloroethylene	81.4	1.1	0.38	ug/m3	TO-15
		Toluene	5.7	3.0	0.87	ug/m3	TO-15
		Trichloroethylene	2.1	0.86	0.41	ug/m3	TO-15
		m,p-Xylene	3.3 J	3.5	2.4	ug/m3	TO-15
		Xylenes (total)	3.3 J	3.5	1.3	ug/m3	TO-15

### JD51423-7R SG-7

		Acetone (2-Propanone)	7.7	0.80	0.58	ppbv	TO-15
		Carbon disulfide	1.4	0.80	0.18	ppbv	TO-15
		Chloroform	2.6	0.80	0.15	ppbv	TO-15
		Cyclohexane	2.9	0.80	0.44	ppbv	TO-15
		Ethyl Acetate	1.1	0.80	0.42	ppbv	TO-15
		2-Hexanone	1.4	0.80	0.58	ppbv	TO-15
		Isopropyl Alcohol	18.4	0.80	0.56	ppbv	TO-15
		Methyl ethyl ketone	1.3	0.80	0.44	ppbv	TO-15
		Propylene	1.2 J	2.0	0.57	ppbv	TO-15
		Tetrachloroethylene	0.78	0.16	0.056	ppbv	TO-15

## Summary of Hits

**Job Number:** JD51423R  
**Account:** Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Collected:** 09/01/22 thru 09/02/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Toluene		0.65 J	0.80	0.23	ppbv	TO-15
Trichloroethylene		0.24	0.16	0.076	ppbv	TO-15
m,p-Xylene		0.64 J	0.80	0.56	ppbv	TO-15
Xylenes (total)		0.64 J	0.80	0.31	ppbv	TO-15
Acetone (2-Propanone)		18	1.9	1.4	ug/m3	TO-15
Carbon disulfide		4.4	2.5	0.56	ug/m3	TO-15
Chloroform		13	3.9	0.73	ug/m3	TO-15
Cyclohexane		10	2.8	1.5	ug/m3	TO-15
Ethyl Acetate		4.0	2.9	1.5	ug/m3	TO-15
2-Hexanone		5.7	3.3	2.4	ug/m3	TO-15
Isopropyl Alcohol		45.2	2.0	1.4	ug/m3	TO-15
Methyl ethyl ketone		3.8	2.4	1.3	ug/m3	TO-15
Propylene		2.1 J	3.4	0.98	ug/m3	TO-15
Tetrachloroethylene		5.3	1.1	0.38	ug/m3	TO-15
Toluene		2.4 J	3.0	0.87	ug/m3	TO-15
Trichloroethylene		1.3	0.86	0.41	ug/m3	TO-15
m,p-Xylene		2.8 J	3.5	2.4	ug/m3	TO-15
Xylenes (total)		2.8 J	3.5	1.3	ug/m3	TO-15

### JD51423-8R SSV-1

Acetone (2-Propanone)		87.2	0.80	0.58	ppbv	TO-15
Cyclohexane		3.7	0.80	0.44	ppbv	TO-15
Dichlorodifluoromethane		0.44 J	0.80	0.13	ppbv	TO-15
Ethyl Acetate		2.8	0.80	0.42	ppbv	TO-15
2-Hexanone		1.9	0.80	0.58	ppbv	TO-15
Isopropyl Alcohol		36.2	0.80	0.56	ppbv	TO-15
Methyl ethyl ketone		11.2	0.80	0.44	ppbv	TO-15
Methyl Isobutyl Ketone		6.2	0.80	0.29	ppbv	TO-15
Acetone (2-Propanone)		207	1.9	1.4	ug/m3	TO-15
Cyclohexane		13	2.8	1.5	ug/m3	TO-15
Dichlorodifluoromethane		2.2 J	4.0	0.64	ug/m3	TO-15
Ethyl Acetate		10	2.9	1.5	ug/m3	TO-15
2-Hexanone		7.8	3.3	2.4	ug/m3	TO-15
Isopropyl Alcohol		89.0	2.0	1.4	ug/m3	TO-15
Methyl ethyl ketone		33.0	2.4	1.3	ug/m3	TO-15
Methyl Isobutyl Ketone		25	3.3	1.2	ug/m3	TO-15

### JD51423-9R SSV-2

Acetone (2-Propanone)		8.2	0.80	0.58	ppbv	TO-15
Benzene		0.71 J	0.80	0.25	ppbv	TO-15
Cyclohexane		2.0	0.80	0.44	ppbv	TO-15
Dichlorodifluoromethane		0.41 J	0.80	0.13	ppbv	TO-15
Ethylbenzene		0.86	0.80	0.24	ppbv	TO-15

## Summary of Hits

**Job Number:** JD51423R  
**Account:** Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Collected:** 09/01/22 thru 09/02/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Ethyl Acetate		31.7	0.80	0.42	ppbv	TO-15
Isopropyl Alcohol		92.0	0.80	0.56	ppbv	TO-15
Methyl ethyl ketone		0.69 J	0.80	0.44	ppbv	TO-15
1,2,4-Trimethylbenzene		0.52 J	0.80	0.35	ppbv	TO-15
Toluene		1.7	0.80	0.23	ppbv	TO-15
m,p-Xylene		2.9	0.80	0.56	ppbv	TO-15
o-Xylene		0.76 J	0.80	0.31	ppbv	TO-15
Xylenes (total)		3.6	0.80	0.31	ppbv	TO-15
Acetone (2-Propanone)		19	1.9	1.4	ug/m3	TO-15
Benzene		2.3 J	2.6	0.80	ug/m3	TO-15
Cyclohexane		6.9	2.8	1.5	ug/m3	TO-15
Dichlorodifluoromethane		2.0 J	4.0	0.64	ug/m3	TO-15
Ethylbenzene		3.7	3.5	1.0	ug/m3	TO-15
Ethyl Acetate		114	2.9	1.5	ug/m3	TO-15
Isopropyl Alcohol		226	2.0	1.4	ug/m3	TO-15
Methyl ethyl ketone		2.0 J	2.4	1.3	ug/m3	TO-15
1,2,4-Trimethylbenzene		2.6 J	3.9	1.7	ug/m3	TO-15
Toluene		6.4	3.0	0.87	ug/m3	TO-15
m,p-Xylene		13	3.5	2.4	ug/m3	TO-15
o-Xylene		3.3 J	3.5	1.3	ug/m3	TO-15
Xylenes (total)		16	3.5	1.3	ug/m3	TO-15

### JD51423-10R SG-DUP

Acetone (2-Propanone)		14.9	0.80	0.58	ppbv	TO-15
Bromomethane		0.53 J	0.80	0.28	ppbv	TO-15
Carbon disulfide		1.2	0.80	0.18	ppbv	TO-15
Chloroform		2.3	0.80	0.15	ppbv	TO-15
Chloromethane		0.88	0.80	0.36	ppbv	TO-15
Cyclohexane		2.9	0.80	0.44	ppbv	TO-15
Ethyl Acetate		0.74 J	0.80	0.42	ppbv	TO-15
Isopropyl Alcohol		12.2	0.80	0.56	ppbv	TO-15
Methyl ethyl ketone		3.1	0.80	0.44	ppbv	TO-15
Propylene		1.4 J	2.0	0.57	ppbv	TO-15
Tetrachloroethylene		0.94	0.16	0.056	ppbv	TO-15
Toluene		0.63 J	0.80	0.23	ppbv	TO-15
Vinyl Acetate		1.3	0.80	0.45	ppbv	TO-15
Acetone (2-Propanone)		35.4	1.9	1.4	ug/m3	TO-15
Bromomethane		2.1 J	3.1	1.1	ug/m3	TO-15
Carbon disulfide		3.7	2.5	0.56	ug/m3	TO-15
Chloroform		11	3.9	0.73	ug/m3	TO-15
Chloromethane		1.8	1.7	0.74	ug/m3	TO-15
Cyclohexane		10	2.8	1.5	ug/m3	TO-15
Ethyl Acetate		2.7 J	2.9	1.5	ug/m3	TO-15
Isopropyl Alcohol		30.0	2.0	1.4	ug/m3	TO-15

## Summary of Hits

**Job Number:** JD51423R  
**Account:** Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Collected:** 09/01/22 thru 09/02/22

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
		9.1	2.4	1.3	ug/m3	TO-15
		2.4 J	3.4	0.98	ug/m3	TO-15
		6.4	1.1	0.38	ug/m3	TO-15
		2.4 J	3.0	0.87	ug/m3	TO-15
		4.6	2.8	1.6	ug/m3	TO-15

Sample Results

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Report of Analysis

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# Report of Analysis

<b>Client Sample ID:</b> SG-1		
<b>Lab Sample ID:</b> JD51423-1R		<b>Date Sampled:</b> 09/02/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A789		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2W61363R.D	1.48	09/13/22 16:33	TCH	n/a	n/a	V2W2723
Run #2							

Run #	Initial Volume
Run #1	148 ml
Run #2	

### VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	20.6	0.80	0.58	ppbv		48.9	1.9	1.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	0.75	ug/m3
71-43-2	78.11	Benzene	0.63	0.80	0.25	ppbv	J	2.0	2.6	0.80	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.12	ppbv		ND	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	2.9	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.28	ppbv		ND	3.1	1.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	2.6	ug/m3
75-15-0	76.14	Carbon disulfide	0.69	0.80	0.18	ppbv	J	2.1	2.5	0.56	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	1.4	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.27	ppbv		ND	2.1	0.71	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.15	ppbv		ND	3.9	0.73	ug/m3
74-87-3	50.49	Chloromethane	0.64	0.80	0.36	ppbv	J	1.3	1.7	0.74	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.16	ppbv		ND	5.0	1.0	ug/m3
110-82-7	84.16	Cyclohexane	5.3	0.80	0.44	ppbv		18	2.8	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.23	ppbv		ND	3.2	0.93	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.24	ppbv		ND	3.2	0.95	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	3.0	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	1.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	1.7	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.52	0.80	0.13	ppbv	J	2.6	4.0	0.64	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.31	ppbv		ND	3.2	1.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	1.1	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	0.96	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	3.7	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	4.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	1.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.24	ppbv		ND	3.5	1.0	ug/m3
141-78-6	88	Ethyl Acetate	146	0.80	0.42	ppbv		525	2.9	1.5	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.80	0.38	ppbv		ND	3.9	1.9	ug/m3

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SG-1	<b>Date Sampled:</b>	09/02/22
<b>Lab Sample ID:</b>	JD51423-1R	<b>Date Received:</b>	09/09/22
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A789	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	TCH-009, Chapel Hill, NC		

## VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.37	ppbv		ND	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.58	ppbv		ND	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.80	0.56	ppbv		ND	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	1.7	0.80	0.22	ppbv		5.9	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	2.2	0.80	0.44	ppbv		6.5	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.29	ppbv		ND	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	1.9	2.0	0.57	ppbv	J	3.3	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.47	ppbv		ND	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	0.50	0.80	0.35	ppbv	J	2.5	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.19	0.16	0.056	ppbv		1.3	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	1.0	0.80	0.36	ppbv		2.9	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	3.3	0.80	0.23	ppbv		12	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	1.3	0.16	0.076	ppbv		7.0	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.54	0.80	0.14	ppbv	J	3.0	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
	106.2	m,p-Xylene	0.67	0.80	0.56	ppbv	J	2.9	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	0.67	0.80	0.31	ppbv	J	2.9	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-2		
<b>Lab Sample ID:</b> JD51423-2R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A413		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2W61365R.D	1	09/13/22 17:40	TCH	n/a	n/a	V2W2723
Run #2							

Run #	Initial Volume
Run #1	100 ml
Run #2	

### VT015 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	5.8	0.80	0.58	ppbv		14	1.9	1.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	0.75	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.25	ppbv		ND	2.6	0.80	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.12	ppbv		ND	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	2.9	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.28	ppbv		ND	3.1	1.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	2.6	ug/m3
75-15-0	76.14	Carbon disulfide	0.53	0.80	0.18	ppbv	J	1.7	2.5	0.56	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	1.4	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.27	ppbv		ND	2.1	0.71	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.15	ppbv		ND	3.9	0.73	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.36	ppbv		ND	1.7	0.74	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.16	ppbv		ND	5.0	1.0	ug/m3
110-82-7	84.16	Cyclohexane	9.7	0.80	0.44	ppbv		33	2.8	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.23	ppbv		ND	3.2	0.93	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.24	ppbv		ND	3.2	0.95	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	3.0	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	1.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	1.7	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.80	0.13	ppbv		ND	4.0	0.64	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.31	ppbv		ND	3.2	1.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	1.1	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	0.96	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	3.7	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	4.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	1.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.40	0.80	0.24	ppbv	J	1.7	3.5	1.0	ug/m3
141-78-6	88	Ethyl Acetate	7.0	0.80	0.42	ppbv		25	2.9	1.5	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.80	0.38	ppbv		ND	3.9	1.9	ug/m3

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-2		
<b>Lab Sample ID:</b> JD51423-2R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A413		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

**VTO15 Special list**

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.37	ppbv		ND	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.58	ppbv		ND	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	44.1	0.80	0.56	ppbv		108	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	1.3	0.80	0.22	ppbv		4.5	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.81	0.80	0.44	ppbv		2.4	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.29	ppbv		ND	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	1.3	2.0	0.57	ppbv	J	2.2	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.47	ppbv		ND	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	0.62	0.80	0.35	ppbv	J	3.0	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.61	0.16	0.056	ppbv		4.1	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.61	0.80	0.36	ppbv	J	1.8	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	1.4	0.80	0.23	ppbv		5.3	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	3.6	0.16	0.076	ppbv		19	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.56	0.80	0.14	ppbv	J	3.1	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
	106.2	m,p-Xylene	1.4	0.80	0.56	ppbv		6.1	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	0.75	0.80	0.31	ppbv	J	3.3	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	2.1	0.80	0.31	ppbv		9.1	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

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<b>Client Sample ID:</b> SG-3		
<b>Lab Sample ID:</b> JD51423-3R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A509		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2W61366R.D	1	09/13/22 18:12	TCH	n/a	n/a	V2W2723
Run #2							

Run #	Initial Volume
Run #1	100 ml
Run #2	

### VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	63.8	0.80	0.58	ppbv		152	1.9	1.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	0.75	ug/m3
71-43-2	78.11	Benzene	0.97	0.80	0.25	ppbv		3.1	2.6	0.80	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.12	ppbv		ND	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	2.9	ug/m3
74-83-9	94.94	Bromomethane	0.77	0.80	0.28	ppbv	J	3.0	3.1	1.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	2.6	ug/m3
75-15-0	76.14	Carbon disulfide	39.7	0.80	0.18	ppbv		124	2.5	0.56	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	1.4	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.27	ppbv		ND	2.1	0.71	ug/m3
67-66-3	119.4	Chloroform	2.7	0.80	0.15	ppbv		13	3.9	0.73	ug/m3
74-87-3	50.49	Chloromethane	0.69	0.80	0.36	ppbv	J	1.4	1.7	0.74	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.16	ppbv		ND	5.0	1.0	ug/m3
110-82-7	84.16	Cyclohexane	6.9	0.80	0.44	ppbv		24	2.8	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.23	ppbv		ND	3.2	0.93	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.24	ppbv		ND	3.2	0.95	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	3.0	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	1.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	1.7	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.80	0.13	ppbv		ND	4.0	0.64	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	1.1	0.80	0.31	ppbv		4.4	3.2	1.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	1.1	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	0.96	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	3.7	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	4.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	1.8	ug/m3
100-41-4	106.2	Ethylbenzene	4.1	0.80	0.24	ppbv		18	3.5	1.0	ug/m3
141-78-6	88	Ethyl Acetate	1.5	0.80	0.42	ppbv		5.4	2.9	1.5	ug/m3
622-96-8	120.19	4-Ethyltoluene	0.42	0.80	0.38	ppbv	J	2.1	3.9	1.9	ug/m3

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SG-3	<b>Date Sampled:</b>	09/01/22
<b>Lab Sample ID:</b>	JD51423-3R	<b>Date Received:</b>	09/09/22
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A509	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	TCH-009, Chapel Hill, NC		

## VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	1.4	0.80	0.37	ppbv		5.7	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	3.5	0.80	0.45	ppbv		12	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	2.2	0.80	0.58	ppbv		9.0	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	8.8	0.80	0.56	ppbv		22	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	1.4	0.80	0.22	ppbv		4.9	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	12.2	0.80	0.44	ppbv		36.0	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.66	0.80	0.29	ppbv	J	2.7	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	129	2.0	0.57	ppbv		222	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	0.51	0.80	0.47	ppbv	J	2.2	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	1.4	0.80	0.35	ppbv		6.9	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	0.55	0.80	0.32	ppbv	J	2.7	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.1	0.16	0.056	ppbv		7.5	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	1.0	0.80	0.36	ppbv		2.9	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	32.8	0.80	0.23	ppbv		124	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	7.3	0.16	0.076	ppbv		39	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.54	0.80	0.14	ppbv	J	3.0	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
	106.2	m,p-Xylene	8.6	0.80	0.56	ppbv		37	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	2.2	0.80	0.31	ppbv		9.6	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	10.8	0.80	0.31	ppbv		46.9	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		65-128%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-4		
<b>Lab Sample ID:</b> JD51423-4R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A1131		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2W61367R.D	1	09/13/22 18:45	TCH	n/a	n/a	V2W2723
Run #2							

Run #	Initial Volume
Run #1	100 ml
Run #2	

### VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	9.7	0.80	0.58	ppbv		23	1.9	1.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	0.75	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.25	ppbv		ND	2.6	0.80	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.12	ppbv		ND	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	2.9	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.28	ppbv		ND	3.1	1.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	2.6	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.18	ppbv		ND	2.5	0.56	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	1.4	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.27	ppbv		ND	2.1	0.71	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.15	ppbv		ND	3.9	0.73	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.36	ppbv		ND	1.7	0.74	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.16	ppbv		ND	5.0	1.0	ug/m3
110-82-7	84.16	Cyclohexane	4.8	0.80	0.44	ppbv		17	2.8	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.23	ppbv		ND	3.2	0.93	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.24	ppbv		ND	3.2	0.95	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	3.0	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	1.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	1.7	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.80	0.13	ppbv		ND	4.0	0.64	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	0.60	0.80	0.31	ppbv	J	2.4	3.2	1.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	1.1	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	0.96	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	3.7	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	4.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	1.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.24	ppbv		ND	3.5	1.0	ug/m3
141-78-6	88	Ethyl Acetate	1.5	0.80	0.42	ppbv		5.4	2.9	1.5	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.80	0.38	ppbv		ND	3.9	1.9	ug/m3

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-4		
<b>Lab Sample ID:</b> JD51423-4R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A1131		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

**VTO15 Special list**

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.37	ppbv		ND	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	1.4	0.80	0.58	ppbv		5.7	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	10.6	0.80	0.56	ppbv		26.1	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	1.0	0.80	0.22	ppbv		3.5	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.4	0.80	0.44	ppbv		4.1	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.29	ppbv		ND	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	1.5	2.0	0.57	ppbv	J	2.6	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.47	ppbv		ND	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.80	0.35	ppbv		ND	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.16	0.16	0.056	ppbv		1.1	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.36	ppbv		ND	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	ND	0.80	0.23	ppbv		ND	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	2.0	0.16	0.076	ppbv		11	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.44	0.80	0.14	ppbv	J	2.5	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.56	ppbv		ND	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		65-128%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> SG-5		
<b>Lab Sample ID:</b> JD51423-5R		<b>Date Sampled:</b> 09/02/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A493		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2W61368R.D	1	09/13/22 19:17	TCH	n/a	n/a	V2W2723
Run #2							

Run #	Initial Volume
Run #1	100 ml
Run #2	

### VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	6.1	0.80	0.58	ppbv		14	1.9	1.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	0.75	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.25	ppbv		ND	2.6	0.80	ug/m3
75-27-4	163.8	Bromodichloromethane	0.42	0.80	0.12	ppbv	J	2.8	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	2.9	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.28	ppbv		ND	3.1	1.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	2.6	ug/m3
75-15-0	76.14	Carbon disulfide	0.77	0.80	0.18	ppbv	J	2.4	2.5	0.56	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	1.4	ug/m3
75-00-3	64.52	Chloroethane	0.39	0.80	0.27	ppbv	J	1.0	2.1	0.71	ug/m3
67-66-3	119.4	Chloroform	5.1	0.80	0.15	ppbv		25	3.9	0.73	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.36	ppbv		ND	1.7	0.74	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.56	0.80	0.16	ppbv	J	3.5	5.0	1.0	ug/m3
110-82-7	84.16	Cyclohexane	2.4	0.80	0.44	ppbv		8.3	2.8	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	11.5	0.80	0.23	ppbv		46.5	3.2	0.93	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	1.7	0.80	0.24	ppbv		6.7	3.2	0.95	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	3.0	ug/m3
107-06-2	98.96	1,2-Dichloroethane	1.5	0.80	0.28	ppbv		6.1	3.2	1.1	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	1.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	1.7	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.80	0.13	ppbv		ND	4.0	0.64	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	87.5	0.80	0.31	ppbv		347	3.2	1.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	1.1	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	0.96	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	3.7	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	4.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	1.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.24	ppbv		ND	3.5	1.0	ug/m3
141-78-6	88	Ethyl Acetate	34.5	0.80	0.42	ppbv		124	2.9	1.5	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.80	0.38	ppbv		ND	3.9	1.9	ug/m3

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SG-5	<b>Date Sampled:</b>	09/02/22
<b>Lab Sample ID:</b>	JD51423-5R	<b>Date Received:</b>	09/09/22
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A493	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	TCH-009, Chapel Hill, NC		

## VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	1.1	0.80	0.12	ppbv		8.4	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.37	ppbv		ND	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.58	ppbv		ND	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	52.9	0.80	0.56	ppbv		130	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	3.0	0.80	0.22	ppbv		10	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.44	0.80	0.44	ppbv	J	1.3	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.29	ppbv		ND	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	1.0	2.0	0.57	ppbv	J	1.7	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.47	ppbv		ND	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	38.8	0.80	0.15	ppbv		212	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.80	0.35	ppbv		ND	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.1	0.16	0.056	ppbv		7.5	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	1.0	0.80	0.36	ppbv		2.9	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	0.94	0.80	0.23	ppbv		3.5	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	1.3	0.16	0.076	ppbv		7.0	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.44	0.80	0.14	ppbv	J	2.5	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	2.0	0.80	0.28	ppbv		5.1	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.56	ppbv		ND	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		65-128%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-6		
<b>Lab Sample ID:</b> JD51423-6R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: M326		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2W61369R.D	1.48	09/13/22 19:51	TCH	n/a	n/a	V2W2723
Run #2							

Run #	Initial Volume
Run #1	148 ml
Run #2	

### VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	7.1	0.80	0.58	ppbv		17	1.9	1.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	0.75	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.25	ppbv		ND	2.6	0.80	ug/m3
75-27-4	163.8	Bromodichloromethane	1.2	0.80	0.12	ppbv		8.0	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	2.9	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.28	ppbv		ND	3.1	1.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	2.6	ug/m3
75-15-0	76.14	Carbon disulfide	1.7	0.80	0.18	ppbv		5.3	2.5	0.56	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	1.4	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.27	ppbv		ND	2.1	0.71	ug/m3
67-66-3	119.4	Chloroform	9.2	0.80	0.15	ppbv		45	3.9	0.73	ug/m3
74-87-3	50.49	Chloromethane	0.40	0.80	0.36	ppbv	J	0.83	1.7	0.74	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.16	ppbv		ND	5.0	1.0	ug/m3
110-82-7	84.16	Cyclohexane	7.5	0.80	0.44	ppbv		26	2.8	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.23	ppbv		ND	3.2	0.93	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.24	ppbv		ND	3.2	0.95	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	3.0	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	1.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	1.7	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.80	0.13	ppbv		ND	4.0	0.64	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	0.39	0.80	0.31	ppbv	J	1.5	3.2	1.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	1.1	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	0.96	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	3.7	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	4.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	1.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.24	ppbv		ND	3.5	1.0	ug/m3
141-78-6	88	Ethyl Acetate	2.5	0.80	0.42	ppbv		9.0	2.9	1.5	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.80	0.38	ppbv		ND	3.9	1.9	ug/m3

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-6		
<b>Lab Sample ID:</b> JD51423-6R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: M326		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

**VTO15 Special list**

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.37	ppbv		ND	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	1.3	0.80	0.45	ppbv		4.6	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.58	ppbv		ND	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	48.1	0.80	0.56	ppbv		118	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.22	ppbv		ND	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.5	0.80	0.44	ppbv		4.4	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.70	0.80	0.29	ppbv	J	2.9	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	2.2	2.0	0.57	ppbv		3.8	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.47	ppbv		ND	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.80	0.35	ppbv		ND	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	12.0	0.16	0.056	ppbv		81.4	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.36	ppbv		ND	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	1.5	0.80	0.23	ppbv		5.7	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	0.39	0.16	0.076	ppbv		2.1	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.14	ppbv		ND	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
	106.2	m,p-Xylene	0.76	0.80	0.56	ppbv	J	3.3	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	0.76	0.80	0.31	ppbv	J	3.3	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-7		
<b>Lab Sample ID:</b> JD51423-7R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A698		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2W61370R.D	1	09/13/22 20:24	TCH	n/a	n/a	V2W2723
Run #2							

Run #	Initial Volume
Run #1	100 ml
Run #2	

### VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	7.7	0.80	0.58	ppbv	18	1.9	1.4		ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv	ND	1.8	0.75		ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.25	ppbv	ND	2.6	0.80		ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.12	ppbv	ND	5.4	0.80		ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv	ND	8.3	2.9		ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.28	ppbv	ND	3.1	1.1		ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv	ND	4.1	2.6		ug/m3
75-15-0	76.14	Carbon disulfide	1.4	0.80	0.18	ppbv	4.4	2.5	0.56		ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv	ND	3.7	1.4		ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.27	ppbv	ND	2.1	0.71		ug/m3
67-66-3	119.4	Chloroform	2.6	0.80	0.15	ppbv	13	3.9	0.73		ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.36	ppbv	ND	1.7	0.74		ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.16	ppbv	ND	5.0	1.0		ug/m3
110-82-7	84.16	Cyclohexane	2.9	0.80	0.44	ppbv	10	2.8	1.5		ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.23	ppbv	ND	3.2	0.93		ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.24	ppbv	ND	3.2	0.95		ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv	ND	6.1	3.0		ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.28	ppbv	ND	3.2	1.1		ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv	ND	3.7	1.2		ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv	ND	2.9	1.7		ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.80	0.13	ppbv	ND	4.0	0.64		ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv	ND	6.8	1.8		ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv	ND	3.2	1.1		ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.31	ppbv	ND	3.2	1.2		ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv	ND	3.6	1.1		ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv	ND	4.8	0.96		ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv	ND	4.8	3.7		ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv	ND	4.8	4.6		ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv	ND	3.6	1.8		ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.24	ppbv	ND	3.5	1.0		ug/m3
141-78-6	88	Ethyl Acetate	1.1	0.80	0.42	ppbv	4.0	2.9	1.5		ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.80	0.38	ppbv	ND	3.9	1.9		ug/m3

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-7		
<b>Lab Sample ID:</b> JD51423-7R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A698		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

**VTO15 Special list**

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.37	ppbv		ND	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	1.4	0.80	0.58	ppbv		5.7	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	18.4	0.80	0.56	ppbv		45.2	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.22	ppbv		ND	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.3	0.80	0.44	ppbv		3.8	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.29	ppbv		ND	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	1.2	2.0	0.57	ppbv	J	2.1	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.47	ppbv		ND	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.80	0.35	ppbv		ND	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.78	0.16	0.056	ppbv		5.3	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.36	ppbv		ND	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	0.65	0.80	0.23	ppbv	J	2.4	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	0.24	0.16	0.076	ppbv		1.3	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.14	ppbv		ND	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
	106.2	m,p-Xylene	0.64	0.80	0.56	ppbv	J	2.8	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	0.64	0.80	0.31	ppbv	J	2.8	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		65-128%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SSV-1		
<b>Lab Sample ID:</b> JD51423-8R		<b>Date Sampled:</b> 09/02/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A1137		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2W61371R.D	1	09/13/22 20:57	TCH	n/a	n/a	V2W2723
Run #2							

Run #	Initial Volume
Run #1	100 ml
Run #2	

## VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	87.2	0.80	0.58	ppbv		207	1.9	1.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	0.75	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.25	ppbv		ND	2.6	0.80	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.12	ppbv		ND	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	2.9	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.28	ppbv		ND	3.1	1.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	2.6	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.18	ppbv		ND	2.5	0.56	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	1.4	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.27	ppbv		ND	2.1	0.71	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.15	ppbv		ND	3.9	0.73	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.36	ppbv		ND	1.7	0.74	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.16	ppbv		ND	5.0	1.0	ug/m3
110-82-7	84.16	Cyclohexane	3.7	0.80	0.44	ppbv		13	2.8	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.23	ppbv		ND	3.2	0.93	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.24	ppbv		ND	3.2	0.95	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	3.0	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	1.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	1.7	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.44	0.80	0.13	ppbv	J	2.2	4.0	0.64	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.31	ppbv		ND	3.2	1.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	1.1	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	0.96	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	3.7	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	4.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	1.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.24	ppbv		ND	3.5	1.0	ug/m3
141-78-6	88	Ethyl Acetate	2.8	0.80	0.42	ppbv		10	2.9	1.5	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.80	0.38	ppbv		ND	3.9	1.9	ug/m3

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SSV-1		
<b>Lab Sample ID:</b> JD51423-8R		<b>Date Sampled:</b> 09/02/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A1137		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

## VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.37	ppbv		ND	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	1.9	0.80	0.58	ppbv		7.8	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	36.2	0.80	0.56	ppbv		89.0	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.22	ppbv		ND	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	11.2	0.80	0.44	ppbv		33.0	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	6.2	0.80	0.29	ppbv		25	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	ND	2.0	0.57	ppbv		ND	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.47	ppbv		ND	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.80	0.35	ppbv		ND	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.16	0.056	ppbv		ND	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.36	ppbv		ND	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	ND	0.80	0.23	ppbv		ND	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.16	0.076	ppbv		ND	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.14	ppbv		ND	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.56	ppbv		ND	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	101%		65-128%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> SSV-2		
<b>Lab Sample ID:</b> JD51423-9R		<b>Date Sampled:</b> 09/02/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A807		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	2W61372R.D	1	09/13/22 21:31	TCH	n/a	n/a	V2W2723

Run #1	Initial Volume
Run #2	100 ml

### VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	8.2	0.80	0.58	ppbv		19	1.9	1.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	0.75	ug/m3
71-43-2	78.11	Benzene	0.71	0.80	0.25	ppbv	J	2.3	2.6	0.80	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.12	ppbv		ND	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	2.9	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.28	ppbv		ND	3.1	1.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	2.6	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.18	ppbv		ND	2.5	0.56	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	1.4	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.27	ppbv		ND	2.1	0.71	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.15	ppbv		ND	3.9	0.73	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.36	ppbv		ND	1.7	0.74	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.16	ppbv		ND	5.0	1.0	ug/m3
110-82-7	84.16	Cyclohexane	2.0	0.80	0.44	ppbv		6.9	2.8	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.23	ppbv		ND	3.2	0.93	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.24	ppbv		ND	3.2	0.95	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	3.0	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	1.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	1.7	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.41	0.80	0.13	ppbv	J	2.0	4.0	0.64	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.31	ppbv		ND	3.2	1.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	1.1	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	0.96	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	3.7	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	4.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	1.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.86	0.80	0.24	ppbv		3.7	3.5	1.0	ug/m3
141-78-6	88	Ethyl Acetate	31.7	0.80	0.42	ppbv		114	2.9	1.5	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.80	0.38	ppbv		ND	3.9	1.9	ug/m3

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SSV-2		
<b>Lab Sample ID:</b> JD51423-9R		<b>Date Sampled:</b> 09/02/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A807		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

**VTO15 Special list**

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.37	ppbv		ND	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.58	ppbv		ND	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	92.0	0.80	0.56	ppbv		226	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.22	ppbv		ND	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.69	0.80	0.44	ppbv	J	2.0	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.29	ppbv		ND	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	ND	2.0	0.57	ppbv		ND	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.47	ppbv		ND	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	0.52	0.80	0.35	ppbv	J	2.6	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.16	0.056	ppbv		ND	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.36	ppbv		ND	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	1.7	0.80	0.23	ppbv		6.4	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.16	0.076	ppbv		ND	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.14	ppbv		ND	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
	106.2	m,p-Xylene	2.9	0.80	0.56	ppbv		13	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	0.76	0.80	0.31	ppbv	J	3.3	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	3.6	0.80	0.31	ppbv		16	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-DUP		
<b>Lab Sample ID:</b> JD51423-10R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A503		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2W61373R.D	1	09/13/22 22:04	TCH	n/a	n/a	V2W2723
Run #2							

Run #	Initial Volume
Run #1	100 ml
Run #2	

### VTO15 Special list

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone (2-Propanone)	14.9	0.80	0.58	ppbv		35.4	1.9	1.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	0.75	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.25	ppbv		ND	2.6	0.80	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.12	ppbv		ND	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	2.9	ug/m3
74-83-9	94.94	Bromomethane	0.53	0.80	0.28	ppbv	J	2.1	3.1	1.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	2.6	ug/m3
75-15-0	76.14	Carbon disulfide	1.2	0.80	0.18	ppbv		3.7	2.5	0.56	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	1.4	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.27	ppbv		ND	2.1	0.71	ug/m3
67-66-3	119.4	Chloroform	2.3	0.80	0.15	ppbv		11	3.9	0.73	ug/m3
74-87-3	50.49	Chloromethane	0.88	0.80	0.36	ppbv		1.8	1.7	0.74	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.16	ppbv		ND	5.0	1.0	ug/m3
110-82-7	84.16	Cyclohexane	2.9	0.80	0.44	ppbv		10	2.8	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.23	ppbv		ND	3.2	0.93	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.24	ppbv		ND	3.2	0.95	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	3.0	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	1.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	1.7	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.80	0.13	ppbv		ND	4.0	0.64	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.31	ppbv		ND	3.2	1.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	1.1	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	0.96	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	3.7	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	4.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	1.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.24	ppbv		ND	3.5	1.0	ug/m3
141-78-6	88	Ethyl Acetate	0.74	0.80	0.42	ppbv	J	2.7	2.9	1.5	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.80	0.38	ppbv		ND	3.9	1.9	ug/m3

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SG-DUP		
<b>Lab Sample ID:</b> JD51423-10R		<b>Date Sampled:</b> 09/01/22
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A503		<b>Date Received:</b> 09/09/22
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> TCH-009, Chapel Hill, NC		

**VTO15 Special list**

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
76-13-1	187.4	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	0.92	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	1.4	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.37	ppbv		ND	3.3	1.5	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	2.7	ug/m3
110-54-3	86.18	Hexane	ND	0.80	0.45	ppbv		ND	2.8	1.6	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.58	ppbv		ND	3.3	2.4	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	12.2	0.80	0.56	ppbv	30.0	2.0	1.4	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.22	ppbv		ND	2.8	0.76	ug/m3
78-93-3	72.11	Methyl ethyl ketone	3.1	0.80	0.44	ppbv		9.1	2.4	1.3	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.29	ppbv		ND	3.3	1.2	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	1.2	ug/m3
91-20-3	128.17	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	2.7	ug/m3
115-07-1	42	Propylene	1.4	2.0	0.57	ppbv	J	2.4	3.4	0.98	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.47	ppbv		ND	3.4	2.0	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	1.3	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	3.6	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.80	0.35	ppbv		ND	3.9	1.7	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	1.6	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.94	0.16	0.056	ppbv		6.4	1.1	0.38	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.36	ppbv		ND	2.4	1.1	ug/m3
108-88-3	92.14	Toluene	0.63	0.80	0.23	ppbv	J	2.4	3.0	0.87	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.16	0.076	ppbv		ND	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.14	ppbv		ND	4.5	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	0.72	ug/m3
108-05-4	86	Vinyl Acetate	1.3	0.80	0.45	ppbv		4.6	2.8	1.6	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.56	ppbv		ND	3.5	2.4	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.31	ppbv		ND	3.5	1.3	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	101%		65-128%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

Misc. Forms

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Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- Summa Canister and Flow Controller Log



Air

### CHAIN OF CUSTODY - AIR

PAGE OF **PN**

SGS North America Inc. - Dayton  
2235 Route 130, Dayton, NJ 08610  
TEL: 732-329-0200 FAX: 732-329-3480  
www.sgs.com/enh-usa

Lab. File Tracking # **4734** Date of Collection **9/22/22**  
SGS Order # **JD51423R** Site ID **JD51423**

Client / Reporting Information		Project Name: <b>TCH-009</b>		Weather Parameters		Requested Analysis
Company Name: <b>Hart-Hickman</b>		Address: <b>828 MLKJ Blvd.</b>		Temperature (Fahrenheit)		
Address: <b>3921 Sunset Ridge Rd Suite 301</b>		City: <b>Chapel Hill</b> State: <b>NC</b>		Start: _____		
City: <b>Raleigh</b> State: <b>NC</b> Zip: <b>27607</b>		Project #		Stop: _____		
Project Contact: <b>Jared Wilke</b> Email: <b>jwilke@hart-hickman.com</b>		Client Purchase Order #		Other weather comment:		
Phone # <b>919-847-4241</b>						
Sampler(s) Name(s): <b>Sam Horgan</b>						

Lab Sample #	Field ID / Point of Collection	Air Type		Sampling Equipment Info		Start Sampling Information				Stop Sampling Information						
		Inlet (R) Soil Vap (SV) Amt (L)	Pipe (R) Non-Reg (NR)	Canister Serial #	Canister Size SL or LL	Flow Controller Serial #	Date	Time (24hr clock)	Canister Pressure (Psi)	Interior Temp (F)	Sampler Init.	Date	Time (24hr clock)	Canister Pressure (Psi)	Interior Temp (F)	Sampler Init.
1	SG-1	SV	NR	A789	1L	FC845	9/22	1301	200	85	9/22	1310	5.0	85		
2	SG-2			A413		FC490	9/22	1252	300	80	9/22	1314	5.0	80		
3	SG-3			A509		MC87	9/22	1349	245	80	9/22	1408	5.0	80		
4	SG-4			A1131		FC963	9/22	1639	28.5	80	9/22	1649	5.0	80		
5	SG-5			A493		FC479	9/22	820	29.0	70	9/22	831	5.0	70		
6	SG-6			M326		FC67	9/22	1602	30.0	80	9/22	1612	5.0	80		
7	SG-7			A618		FC298	9/22	1459	30.0	80	9/22	1519	5.0	80		
8	SSV-1			A1137		FC65	9/22	931	28.5	70	9/22	942	5.0	70		
9	SSV-2			A807		F951	9/22	1000	26.5	70	9/22	1009	5.0	70		
10	SG-DUP			A503		FC298	9/22	-	30.0	80	9/22	-	5.0	80		

Turnaround Time (Business Days)	Approved By: _____	Date: _____	AN NJDEP TO-16 is mandatory for T1	Comments / Remarks: <b>4B En</b>
<input type="checkbox"/> 15 Business Days <input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other	* Approval needed for 1-3 Business Day TAT Sample Custody must be documented below each time someone change possession, including courier delivery.		<input type="checkbox"/> Coren A <input type="checkbox"/> Coren B <input type="checkbox"/> Reduced T2 <input type="checkbox"/> Part T1 <input type="checkbox"/> Other: _____ DNCP reporting	Sample inventory is verified upon receipt in the Laboratory

Retrieved By: <b>[Signature]</b>	Date / Time: <b>9/22/22 11:00</b>	Received By: <b>[Signature]</b>	Date / Time: <b>9/22/22 13:00</b>	Retrieved By: <b>[Signature]</b>	Date / Time: <b>9/19 10:00</b>	Received By: <b>[Signature]</b>
Retrieved By: <b>[Signature]</b>	Date / Time: <b>9/22/22 16:00</b>	Received By: <b>[Signature]</b>	Date / Time: <b>9/19 10:00</b>	Retrieved By: <b>[Signature]</b>	Date / Time: <b>9/19 10:00</b>	Received By: <b>[Signature]</b>

ENSA-QAC-0022-01-FORM-Dayton-Air COC  
Rev. date: 1/15/2021





# AIR SAMPLING EQUIPMENT RETURN FORM

CLIENT: Hart + Ackman

PROJECT: RR-08922-134

CONTROL# \_\_\_\_\_

JOB # JD51423

### ADDITIONAL SUMMA CANISTERS

11 A1155

12 \_\_\_\_\_

13 \_\_\_\_\_

### ADDITIONAL CONTROLLERS

FC055

FC732

T-split

DATE & TIME

DATE & TIME

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
1		2	
RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
3		4	
CUSTODY SEAL #S:		# OF BOXES OR PIECES IN DELIVERY	

NOTES:

SM086-03  
Pub date: 3/12/18

## SGS Sample Receipt Summary

Job Number: JD51423

Client: HART & HICKMAN

Project: TCH-009, CHAPEL HILL, NC

Date / Time Received: 9/9/2022 10:00:00 AM

Delivery Method: \_\_\_\_\_

Airbill #'s: \_\_\_\_\_

Cooler Temps (Raw Measured) °C:

Cooler Temps (Corrected) °C:

**Cooler Security**

Y or N

Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Cooler Temperature**

Y or N

- |                              |                          |                          |
|------------------------------|--------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | <u>N/A</u>               |                          |
| 3. Cooler media:             | <u>N/A</u>               |                          |
| 4. No. Coolers:              | <u>N/A</u>               |                          |

**Quality Control Preservation**

Y or N

N/A

- |                                 |                                     |                          |                                     |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            |

**Sample Integrity - Documentation**

Y or N

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Sample Integrity - Condition**

Y or N

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | <u>Intact</u>                       |                          |

**Sample Integrity - Instructions**

Y or N

N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Test Strip Lot #s:

pH 1-12: 231619

pH 12+: 203117A

Other: (Specify) \_\_\_\_\_

Comments

- 1). "FC298" is listed twice on the COC. It has been appended to sample -7. Please confirm.  
 2). No samples are marked for analysis on the COC. Please verify the analyses.

**JD51423R: Chain of Custody**

Page 3 of 5

4.1  
4



Both summas were connected via T-connector and then one regulator was used to sample (FC298). Log in for VTO15SL

**JD51423R: Chain of Custody**

**Page 4 of 5**

Job Change Order: JD51423

Requested Date: 11/2/2022 Received Date: 9/9/2022  
Account Name: Hart & Hickman Due Date: 11/2/2022  
Project Description: TCH-009, Chapel Hill, NC Deliverable: COMMB  
C/O Initiated By: KELLY.RAM PM: KR TAT (Days): 2

=====  
Sample #: JD51423-ALL Change: Please NO OUT Acroclein and reissue report  
Dept:  
TAT: 2  
=====

JD51423R: Chain of Custody  
Page 5 of 5

Above Changes Per: Justin Ballard Date/Time: 11/2/2022

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

# Summa Canister and Flow Controller Log

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC  
**Received:** 09/09/22

4.2  
4

SUMMA CANISTERS													
Shipping						Receiving							
Summa ID	Vac L	Date " Hg	Date Out	By	SCC Batch	SCC FileID	Sample Number	Date In	By	Vac " Hg	Pres psig	Final psig	Dil Fact
A789	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-1	09/12/22	ML	8			1.2
A413	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-2	09/12/22	ML	6			1
A509	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-3	09/12/22	ML	7			1
A1131	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-4	09/12/22	ML	6			1
A493	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-5	09/12/22	ML	5			1
M326	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-6	09/12/22	ML	8		1.2	1.48
A698	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-7	09/12/22	ML	6.5			1
A1137	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-8	09/12/22	ML	5			1
A807	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-9	09/12/22	ML	6			1
A503	1	29.4	08/16/22	ML	CP11832	6W25352.D	JD51423-10	09/12/22	ML	6			1

FLOW CONTROLLERS / OTHER										
Shipping					Receiving					
Flow Ctrl ID	Date Out	By	cc/ min	Time hrs.	Date In	By	cc/ min	Flow RPD	Equipment Type	
FC298	08/16/22	ML	83	.5	09/12/22	DG	87	4.7	Flow Controller	
FC479	08/16/22	ML	83	.5	09/12/22	DG	87	4.7	Flow Controller	
FC490	08/16/22	ML	84	.5	09/12/22	DG	82	2.4	Flow Controller	
FC557	08/16/22	ML	83	.5	09/12/22	DG	90	8.1	Flow Controller	
FC732	08/16/22	ML	84	.5	09/12/22	DG	90	6.9	Flow Controller	
FC845	08/16/22	ML	83	.5	09/12/22	DG	86	3.6	Flow Controller	
FC851	08/16/22	ML	82	.5	09/12/22	DG	91	10.4	Flow Controller	
FC963	08/16/22	ML	84	.5	09/12/22	DG	91	8	Flow Controller	
FC967	08/16/22	ML	84	.5	09/12/22	DG	82	2.4	Flow Controller	
MC187	08/16/22	ML	82	.5	09/12/22	DG	86	4.8	Flow Controller	
FC1055	08/16/22	ML	84	.5	09/12/22	DG	81	3.6	Flow Controller	

**SGS Bottle Order(s):**  
 KR-08922-134

**Prep Date**      **Room Temp(F)**      **Bar Pres "Hg**  
 08/16/22          70                                  29.92

## MS Volatiles

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

## Method Blank Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2723-MB	2W61359.D	1	09/13/22	TCH	n/a	n/a	V2W2723

The QC reported here applies to the following samples:

Method: TO-15

JD51423-1R, JD51423-2R, JD51423-3R, JD51423-4R, JD51423-5R, JD51423-6R, JD51423-7R, JD51423-8R, JD51423-9R, JD51423-10R

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.20	0.15	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.084	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.062	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.030	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.071	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.069	ppbv		ND	0.78	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.13	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.045	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.074	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.068	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.037	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.090	ppbv		ND	0.41	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.040	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.11	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.057	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.059	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.20	0.097	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.070	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.062	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.12	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.032	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.052	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.069	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.077	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.062	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.040	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.15	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.19	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.10	ppbv		ND	0.91	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.061	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.10	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.095	ppbv		ND	0.98	ug/m3
76-13-1	Freon 113	ND	0.20	0.031	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.050	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.092	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.062	ppbv		ND	2.1	ug/m3

5.1.1  
5

## Method Blank Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2723-MB	2W61359.D	1	09/13/22	TCH	n/a	n/a	V2W2723

The QC reported here applies to the following samples:

Method: TO-15

JD51423-1R, JD51423-2R, JD51423-3R, JD51423-4R, JD51423-5R, JD51423-6R, JD51423-7R, JD51423-8R, JD51423-9R, JD51423-10R

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
110-54-3	Hexane	ND	0.20	0.11	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.15	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.14	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.056	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.11	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.073	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.080	ppbv		ND	0.72	ug/m3
91-20-3	Naphthalene	ND	0.20	0.13	ppbv		ND	1.0	ug/m3
115-07-1	Propylene	ND	0.50	0.14	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.12	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.037	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.048	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.038	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.12	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.087	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.080	ppbv		ND	0.98	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.014	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.090	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.057	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.036	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.069	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.11	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.14	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.077	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.077	ppbv		ND	0.87	ug/m3

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	99% 65-128%

## Method Blank Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W1078-MB	6W25338.D	1	08/05/22	TCH	n/a	n/a	V6W1078

The QC reported here applies to the following samples:

Method: TO-15

V6W1078-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.20	0.15	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.084	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.062	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.030	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.071	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.069	ppbv		ND	0.78	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.13	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.045	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.074	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.068	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.037	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.090	ppbv		ND	0.41	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.040	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.11	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.057	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.059	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.20	0.097	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.070	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.062	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.12	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.032	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.052	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.069	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.077	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.062	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.040	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.15	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.19	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.10	ppbv		ND	0.91	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.061	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.10	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.095	ppbv		ND	0.98	ug/m3
76-13-1	Freon 113	ND	0.20	0.031	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.050	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.092	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.062	ppbv		ND	2.1	ug/m3

# Method Blank Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W1078-MB	6W25338.D	1	08/05/22	TCH	n/a	n/a	V6W1078

The QC reported here applies to the following samples:

Method: TO-15

V6W1078-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
110-54-3	Hexane	ND	0.20	0.11	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.15	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.14	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.056	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.11	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.073	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.080	ppbv		ND	0.72	ug/m3
91-20-3	Naphthalene	ND	0.20	0.13	ppbv		ND	1.0	ug/m3
115-07-1	Propylene	ND	0.50	0.14	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.12	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.037	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.048	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.038	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.12	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.087	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.080	ppbv		ND	0.98	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.014	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.090	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.057	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.036	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.069	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.11	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.14	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.077	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.077	ppbv		ND	0.87	ug/m3

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	97% 65-128%

5.1.2  
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# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2723-BS	2W61356.D	1	09/13/22	TCH	n/a	n/a	V2W2723
V2W2723-BSD	2W61357.D	1	09/13/22	TCH	n/a	n/a	V2W2723

The QC reported here applies to the following samples:

Method: TO-15

JD51423-1R, JD51423-2R, JD51423-3R, JD51423-4R, JD51423-5R, JD51423-6R, JD51423-7R, JD51423-8R, JD51423-9R, JD51423-10R

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone (2-Propanone)	10	10.1	101	9.9	99	2	70-130/30
106-99-0	1,3-Butadiene	10	9.7	97	9.8	98	1	70-130/30
71-43-2	Benzene	10	9.2	92	9.2	92	0	70-130/30
75-27-4	Bromodichloromethane	10	10.2	102	10.2	102	0	70-130/30
75-25-2	Bromoform	10	9.9	99	9.8	98	1	70-130/30
74-83-9	Bromomethane	10	9.4	94	9.3	93	1	70-130/30
100-44-7	Benzyl Chloride	10	8.9	89	8.7	87	2	70-130/30
75-15-0	Carbon disulfide	10	10.4	104	10.3	103	1	70-130/30
108-90-7	Chlorobenzene	10	9.5	95	9.4	94	1	70-130/30
75-00-3	Chloroethane	10	10.9	109	10.9	109	0	70-130/30
67-66-3	Chloroform	10	9.4	94	9.4	94	0	70-130/30
74-87-3	Chloromethane	10	8.9	89	9.0	90	1	70-130/30
56-23-5	Carbon tetrachloride	10	9.1	91	9.2	92	1	70-130/30
110-82-7	Cyclohexane	10	9.8	98	9.9	99	1	70-130/30
75-34-3	1,1-Dichloroethane	10	10.7	107	10.7	107	0	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.8	98	9.8	98	0	70-130/30
106-93-4	1,2-Dibromoethane (EDB)	10	9.9	99	9.9	99	0	70-130/30
107-06-2	1,2-Dichloroethane	10	10.6	106	10.7	107	1	70-130/30
78-87-5	1,2-Dichloropropane	10	10.9	109	10.9	109	0	70-130/30
123-91-1	1,4-Dioxane	10	10.7	107	10.8	108	1	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.5	95	9.5	95	0	70-130/30
124-48-1	Dibromochloromethane	10	9.9	99	9.9	99	0	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.2	92	9.3	93	1	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.0	90	9.2	92	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	10.2	102	10.3	103	1	70-130/30
541-73-1	m-Dichlorobenzene	10	9.9	99	9.8	98	1	70-130/30
95-50-1	o-Dichlorobenzene	10	9.9	99	9.8	98	1	70-130/30
106-46-7	p-Dichlorobenzene	10	9.9	99	9.8	98	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.0	100	10	100	0	70-130/30
100-41-4	Ethylbenzene	10	9.8	98	9.7	97	1	70-130/30
141-78-6	Ethyl Acetate	10	10.7	107	10.7	107	0	70-130/30
622-96-8	4-Ethyltoluene	10	10.4	104	10.3	103	1	70-130/30
76-13-1	Freon 113	10	9.5	95	9.4	94	1	70-130/30
76-14-2	Freon 114	10	9.6	96	9.7	97	1	70-130/30
142-82-5	Heptane	10	9.5	95	9.6	96	1	70-130/30
87-68-3	Hexachlorobutadiene	10	9.1	91	8.9	89	2	70-130/30

\* = Outside of Control Limits.

5.2.1  
5

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2723-BS	2W61356.D	1	09/13/22	TCH	n/a	n/a	V2W2723
V2W2723-BSD	2W61357.D	1	09/13/22	TCH	n/a	n/a	V2W2723

The QC reported here applies to the following samples:

Method: TO-15

JD51423-1R, JD51423-2R, JD51423-3R, JD51423-4R, JD51423-5R, JD51423-6R, JD51423-7R, JD51423-8R, JD51423-9R, JD51423-10R

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
110-54-3	Hexane	10	10.3	103	10.2	102	1	70-130/30
591-78-6	2-Hexanone	10	9.1	91	9.0	90	1	70-130/30
67-63-0	Isopropyl Alcohol	10	10	100	9.8	98	2	70-130/30
75-09-2	Methylene chloride	10	8.8	88	8.8	88	0	70-130/30
78-93-3	Methyl ethyl ketone	10	9.9	99	9.9	99	0	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.9	119	11.9	119	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	8.9	89	8.9	89	0	70-130/30
91-20-3	Naphthalene	10	10.3	103	10.1	101	2	70-130/30
115-07-1	Propylene	10	8.1	81	8.3	83	2	70-130/30
100-42-5	Styrene	10	10.4	104	10.3	103	1	70-130/30
71-55-6	1,1,1-Trichloroethane	10	8.9	89	8.9	89	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.7	107	10.6	106	1	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.9	99	9.9	99	0	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	10.5	105	10.3	103	2	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.3	103	10.3	103	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	10.3	103	10.1	101	2	70-130/30
127-18-4	Tetrachloroethylene	10	9.0	90	8.9	89	1	70-130/30
109-99-9	Tetrahydrofuran	10	10.1	101	10.1	101	0	70-130/30
108-88-3	Toluene	10	9.3	93	9.3	93	0	70-130/30
79-01-6	Trichloroethylene	10	9.9	99	9.9	99	0	70-130/30
75-69-4	Trichlorofluoromethane	10	10	100	9.8	98	2	70-130/30
75-01-4	Vinyl chloride	10	10.8	108	10.9	109	1	70-130/30
108-05-4	Vinyl Acetate	10	10.4	104	10.2	102	2	70-130/30
	m,p-Xylene	20	19.8	99	19.7	99	1	70-130/30
95-47-6	o-Xylene	10	9.9	99	9.8	98	1	70-130/30
1330-20-7	Xylenes (total)	30	29.7	99	29.5	98	1	70-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	104%	105%	65-128%

\* = Outside of Control Limits.

5.2.1  
5

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W1078-BS	6W25335.D	1	08/05/22	TCH	n/a	n/a	V6W1078
V6W1078-BSD	6W25336.D	1	08/05/22	TCH	n/a	n/a	V6W1078

The QC reported here applies to the following samples:

Method: TO-15

V6W1078-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone (2-Propanone)	10	8.5	85	8.5	85	0	70-130/30
106-99-0	1,3-Butadiene	10	8.8	88	8.7	87	1	70-130/30
71-43-2	Benzene	10	9.5	95	9.3	93	2	70-130/30
75-27-4	Bromodichloromethane	10	10.0	100	10.0	100	0	70-130/30
75-25-2	Bromoform	10	11.7	117	11.7	117	0	70-130/30
74-83-9	Bromomethane	10	9.8	98	9.7	97	1	70-130/30
100-44-7	Benzyl Chloride	10	10.6	106	10.4	104	2	70-130/30
75-15-0	Carbon disulfide	10	9.8	98	9.7	97	1	70-130/30
108-90-7	Chlorobenzene	10	10.1	101	10	100	1	70-130/30
75-00-3	Chloroethane	10	8.6	86	8.4	84	2	70-130/30
67-66-3	Chloroform	10	9.6	96	9.5	95	1	70-130/30
74-87-3	Chloromethane	10	8.5	85	8.5	85	0	70-130/30
56-23-5	Carbon tetrachloride	10	10.1	101	9.9	99	2	70-130/30
110-82-7	Cyclohexane	10	9.8	98	9.9	99	1	70-130/30
75-34-3	1,1-Dichloroethane	10	9.2	92	9.2	92	0	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.0	100	10.0	100	0	70-130/30
106-93-4	1,2-Dibromoethane (EDB)	10	10.1	101	10.1	101	0	70-130/30
107-06-2	1,2-Dichloroethane	10	8.7	87	8.6	86	1	70-130/30
78-87-5	1,2-Dichloropropane	10	9.5	95	9.6	96	1	70-130/30
123-91-1	1,4-Dioxane	10	11.6	116	11.8	118	2	70-130/30
75-71-8	Dichlorodifluoromethane	10	11.9	119	9.5	95	22	70-130/30
124-48-1	Dibromochloromethane	10	10.9	109	10.8	108	1	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.1	101	9.8	98	3	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10	100	9.7	97	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.9	99	9.9	99	0	70-130/30
541-73-1	m-Dichlorobenzene	10	10.6	106	10.3	103	3	70-130/30
95-50-1	o-Dichlorobenzene	10	10.4	104	10.3	103	1	70-130/30
106-46-7	p-Dichlorobenzene	10	10.5	105	10.5	105	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	9.6	96	9.6	96	0	70-130/30
100-41-4	Ethylbenzene	10	9.8	98	9.7	97	1	70-130/30
141-78-6	Ethyl Acetate	10	9.8	98	9.6	96	2	70-130/30
622-96-8	4-Ethyltoluene	10	10.4	104	10.5	105	1	70-130/30
76-13-1	Freon 113	10	10.9	109	10.7	107	2	70-130/30
76-14-2	Freon 114	10	9.9	99	9.7	97	2	70-130/30
142-82-5	Heptane	10	7.7	77	7.7	77	0	70-130/30
87-68-3	Hexachlorobutadiene	10	10.2	102	10.1	101	1	70-130/30

\* = Outside of Control Limits.

5.2.2  
5

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W1078-BS	6W25335.D	1	08/05/22	TCH	n/a	n/a	V6W1078
V6W1078-BSD	6W25336.D	1	08/05/22	TCH	n/a	n/a	V6W1078

The QC reported here applies to the following samples:

Method: TO-15

V6W1078-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
110-54-3	Hexane	10	8.6	86	8.5	85	1	70-130/30
591-78-6	2-Hexanone	10	11.3	113	11.3	113	0	70-130/30
67-63-0	Isopropyl Alcohol	10	8.0	80	7.8	78	3	70-130/30
75-09-2	Methylene chloride	10	10.0	100	9.7	97	3	70-130/30
78-93-3	Methyl ethyl ketone	10	10.2	102	10.1	101	1	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.1	101	10.1	101	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.4	94	9.3	93	1	70-130/30
91-20-3	Naphthalene	10	10.6	106	10.6	106	0	70-130/30
115-07-1	Propylene	10	7.5	75	7.3	73	3	70-130/30
100-42-5	Styrene	10	10.8	108	10.7	107	1	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.8	98	9.6	96	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	9.8	98	9.7	97	1	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.8	98	9.9	99	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	10.8	108	10.8	108	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.3	103	10.2	102	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	10.3	103	10.6	106	3	70-130/30
127-18-4	Tetrachloroethylene	10	10.6	106	10.6	106	0	70-130/30
109-99-9	Tetrahydrofuran	10	10.6	106	10.5	105	1	70-130/30
108-88-3	Toluene	10	9.7	97	9.6	96	1	70-130/30
79-01-6	Trichloroethylene	10	10	100	9.9	99	1	70-130/30
75-69-4	Trichlorofluoromethane	10	10.1	101	10.0	100	1	70-130/30
75-01-4	Vinyl chloride	10	8.6	86	8.8	88	2	70-130/30
108-05-4	Vinyl Acetate	10	10.8	108	10.2	102	6	70-130/30
	m,p-Xylene	20	19.9	100	19.8	99	1	70-130/30
95-47-6	o-Xylene	10	9.8	98	9.8	98	0	70-130/30
1330-20-7	Xylenes (total)	30	29.8	99	29.6	99	1	70-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	99%	98%	65-128%

\* = Outside of Control Limits.

5.2.2  
5

# Duplicate Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD51423-1DUP	2W61364.D	1.48	09/13/22	TCH	n/a	n/a	V2W2723
JD51423-1	2W61363.D	1.48	09/13/22	TCH	n/a	n/a	V2W2723

The QC reported here applies to the following samples:

Method: TO-15

JD51423-1R, JD51423-2R, JD51423-3R, JD51423-4R, JD51423-5R, JD51423-6R, JD51423-7R, JD51423-8R, JD51423-9R, JD51423-10R

CAS No.	Compound	JD51423-1 ppbv	DUP Q	ppbv	Q	RPD	Limits
67-64-1	Acetone (2-Propanone)	20.6		19.5		5	25
106-99-0	1,3-Butadiene	ND		ND		nc	25
71-43-2	Benzene	0.63	J	0.68	J	8	25
75-27-4	Bromodichloromethane	ND		ND		nc	25
75-25-2	Bromoform	ND		ND		nc	25
74-83-9	Bromomethane	ND		ND		nc	25
100-44-7	Benzyl Chloride	ND		ND		nc	25
75-15-0	Carbon disulfide	0.69	J	0.66	J	4	25
108-90-7	Chlorobenzene	ND		ND		nc	25
75-00-3	Chloroethane	ND		ND		nc	25
67-66-3	Chloroform	ND		ND		nc	25
74-87-3	Chloromethane	0.64	J	0.65	J	2	25
56-23-5	Carbon tetrachloride	ND		ND		nc	25
110-82-7	Cyclohexane	5.3		5.2		2	25
75-34-3	1,1-Dichloroethane	ND		ND		nc	25
75-35-4	1,1-Dichloroethylene	ND		ND		nc	25
106-93-4	1,2-Dibromoethane (EDB)	ND		ND		nc	25
107-06-2	1,2-Dichloroethane	ND		ND		nc	25
78-87-5	1,2-Dichloropropane	ND		ND		nc	25
123-91-1	1,4-Dioxane	ND		ND		nc	25
75-71-8	Dichlorodifluoromethane	0.52	J	0.51	J	2	25
124-48-1	Dibromochloromethane	ND		ND		nc	25
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	25
156-59-2	cis-1,2-Dichloroethylene	ND		ND		nc	25
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	25
541-73-1	m-Dichlorobenzene	ND		ND		nc	25
95-50-1	o-Dichlorobenzene	ND		ND		nc	25
106-46-7	p-Dichlorobenzene	ND		ND		nc	25
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	25
100-41-4	Ethylbenzene	ND		ND		nc	25
141-78-6	Ethyl Acetate	146		143		2	25
622-96-8	4-Ethyltoluene	ND		ND		nc	25
76-13-1	Freon 113	ND		ND		nc	25
76-14-2	Freon 114	ND		ND		nc	25
142-82-5	Heptane	ND		ND		nc	25
87-68-3	Hexachlorobutadiene	ND		ND		nc	25

\* = Outside of Control Limits.

5.3.1  
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# Duplicate Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD51423-1DUP	2W61364.D	1.48	09/13/22	TCH	n/a	n/a	V2W2723
JD51423-1	2W61363.D	1.48	09/13/22	TCH	n/a	n/a	V2W2723

The QC reported here applies to the following samples:

Method: TO-15

JD51423-1R, JD51423-2R, JD51423-3R, JD51423-4R, JD51423-5R, JD51423-6R, JD51423-7R, JD51423-8R, JD51423-9R, JD51423-10R

CAS No.	Compound	JD51423-1 ppbv	DUP Q	ppbv	Q	RPD	Limits
110-54-3	Hexane	ND		ND		nc	25
591-78-6	2-Hexanone	ND		ND		nc	25
67-63-0	Isopropyl Alcohol	ND		ND		nc	25
75-09-2	Methylene chloride	1.7		1.7		0	25
78-93-3	Methyl ethyl ketone	2.2		1.8		20	25
108-10-1	Methyl Isobutyl Ketone	ND		ND		nc	25
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	25
91-20-3	Naphthalene	ND		ND		nc	25
115-07-1	Propylene	1.9	J	1.9	J	0	25
100-42-5	Styrene	ND		ND		nc	25
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	25
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	25
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	25
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	25
95-63-6	1,2,4-Trimethylbenzene	0.50	J	0.47	J	6	25
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	25
127-18-4	Tetrachloroethylene	0.19		0.19		0	25
109-99-9	Tetrahydrofuran	1.0		0.83		19	25
108-88-3	Toluene	3.3		3.3		0	25
79-01-6	Trichloroethylene	1.3		1.3		0	25
75-69-4	Trichlorofluoromethane	0.54	J	0.47	J	14	25
75-01-4	Vinyl chloride	ND		ND		nc	25
108-05-4	Vinyl Acetate	ND		ND		nc	25
	m,p-Xylene	0.67	J	0.68	J	1	25
95-47-6	o-Xylene	ND		ND		nc	25
1330-20-7	Xylenes (total)	0.67	J	0.68	J	1	25

CAS No.	Surrogate Recoveries	DUP	JD51423-1	Limits
460-00-4	4-Bromofluorobenzene	100%	99%	65-128%

\* = Outside of Control Limits.

5.3.1  
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# Summa Cleaning Certification

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W1078-SCC	6W25351.D	1	08/06/22	TCH	n/a	n/a	V6W1078

**The QC reported here (Summa A603) applies to the following samples:** Method: TO-15

Batch CP11832 cleaned 07/25/22: JD51423-1R(A789), JD51423-2R(A413), JD51423-3R(A509), JD51423-4R(A1131), JD51423-5R(A493), JD51423-6R(M326), JD51423-7R(A698), JD51423-8R(A1137), JD51423-9R(A807), JD51423-10R(A503)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.80	0.58	ppbv		ND	1.9	ug/m3
106-99-0	1,3-Butadiene	ND	0.80	0.34	ppbv		ND	1.8	ug/m3
71-43-2	Benzene	ND	0.80	0.25	ppbv		ND	2.6	ug/m3
75-27-4	Bromodichloromethane	ND	0.80	0.12	ppbv		ND	5.4	ug/m3
75-25-2	Bromoform	ND	0.80	0.28	ppbv		ND	8.3	ug/m3
74-83-9	Bromomethane	ND	0.80	0.28	ppbv		ND	3.1	ug/m3
100-44-7	Benzyl Chloride	ND	0.80	0.50	ppbv		ND	4.1	ug/m3
75-15-0	Carbon disulfide	ND	0.80	0.18	ppbv		ND	2.5	ug/m3
108-90-7	Chlorobenzene	ND	0.80	0.30	ppbv		ND	3.7	ug/m3
75-00-3	Chloroethane	ND	0.80	0.27	ppbv		ND	2.1	ug/m3
67-66-3	Chloroform	ND	0.80	0.15	ppbv		ND	3.9	ug/m3
74-87-3	Chloromethane	ND	0.80	0.36	ppbv		ND	1.7	ug/m3
56-23-5	Carbon tetrachloride	ND	0.80	0.16	ppbv		ND	5.0	ug/m3
110-82-7	Cyclohexane	ND	0.80	0.44	ppbv		ND	2.8	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.80	0.23	ppbv		ND	3.2	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.80	0.24	ppbv		ND	3.2	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.80	0.39	ppbv		ND	6.1	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.80	0.28	ppbv		ND	3.2	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.80	0.25	ppbv		ND	3.7	ug/m3
123-91-1	1,4-Dioxane	ND	0.80	0.47	ppbv		ND	2.9	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.80	0.13	ppbv		ND	4.0	ug/m3
124-48-1	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.80	0.31	ppbv		ND	3.2	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.80	0.25	ppbv		ND	3.6	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.80	0.16	ppbv		ND	4.8	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.80	0.62	ppbv		ND	4.8	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.80	0.76	ppbv		ND	4.8	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.80	0.40	ppbv		ND	3.6	ug/m3
100-41-4	Ethylbenzene	ND	0.80	0.24	ppbv		ND	3.5	ug/m3
141-78-6	Ethyl Acetate	ND	0.80	0.42	ppbv		ND	2.9	ug/m3
622-96-8	4-Ethyltoluene	ND	0.80	0.38	ppbv		ND	3.9	ug/m3
76-13-1	Freon 113	ND	0.80	0.12	ppbv		ND	6.1	ug/m3
76-14-2	Freon 114	ND	0.80	0.20	ppbv		ND	5.6	ug/m3
142-82-5	Heptane	ND	0.80	0.37	ppbv		ND	3.3	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.80	0.25	ppbv		ND	8.5	ug/m3

5.4.1  
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# Summa Cleaning Certification

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W1078-SCC	6W25351.D	1	08/06/22	TCH	n/a	n/a	V6W1078

**The QC reported here (Summa A603) applies to the following samples:**      **Method:** TO-15

Batch CP11832 cleaned 07/25/22: JD51423-1R(A789), JD51423-2R(A413), JD51423-3R(A509), JD51423-4R(A1131), JD51423-5R(A493), JD51423-6R(M326), JD51423-7R(A698), JD51423-8R(A1137), JD51423-9R(A807), JD51423-10R(A503)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
110-54-3	Hexane	ND	0.80	0.45	ppbv		ND	2.8	ug/m3
591-78-6	2-Hexanone	ND	0.80	0.58	ppbv		ND	3.3	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.80	0.56	ppbv		ND	2.0	ug/m3
75-09-2	Methylene chloride	ND	0.80	0.22	ppbv		ND	2.8	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.80	0.44	ppbv		ND	2.4	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.80	0.29	ppbv		ND	3.3	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.80	0.32	ppbv		ND	2.9	ug/m3
91-20-3	Naphthalene	ND	0.80	0.51	ppbv		ND	4.2	ug/m3
115-07-1	Propylene	ND	2.0	0.57	ppbv		ND	3.4	ug/m3
100-42-5	Styrene	ND	0.80	0.47	ppbv		ND	3.4	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.80	0.19	ppbv		ND	5.5	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.80	0.15	ppbv		ND	4.4	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.80	0.48	ppbv		ND	5.9	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.80	0.35	ppbv		ND	3.9	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.80	0.32	ppbv		ND	3.9	ug/m3
127-18-4	Tetrachloroethylene	ND	0.16	0.056	ppbv		ND	1.1	ug/m3
109-99-9	Tetrahydrofuran	ND	0.80	0.36	ppbv		ND	2.4	ug/m3
108-88-3	Toluene	ND	0.80	0.23	ppbv		ND	3.0	ug/m3
79-01-6	Trichloroethylene	ND	0.16	0.076	ppbv		ND	0.86	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.80	0.14	ppbv		ND	4.5	ug/m3
75-01-4	Vinyl chloride	ND	0.80	0.28	ppbv		ND	2.0	ug/m3
108-05-4	Vinyl Acetate	ND	0.80	0.45	ppbv		ND	2.8	ug/m3
	m,p-Xylene	ND	0.80	0.56	ppbv		ND	3.5	ug/m3
95-47-6	o-Xylene	ND	0.80	0.31	ppbv		ND	3.5	ug/m3
1330-20-7	Xylenes (total)	ND	0.80	0.31	ppbv		ND	3.5	ug/m3

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	95% 65-128%

5.4.1  
5



# Instrument Performance Check (BFB)

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

<b>Sample:</b> V2W2709-BFB	<b>Injection Date:</b> 08/19/22
<b>Lab File ID:</b> 2W61009.D	<b>Injection Time:</b> 10:50
<b>Instrument ID:</b> GCMS2W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	14581	21.8	Pass
75	30.0 - 66.0% of mass 95	32835	49.2	Pass
95	Base peak, 100% relative abundance	66739	100.0	Pass
96	5.0 - 9.0% of mass 95	4420	6.62	Pass
173	Less than 2.0% of mass 174	243	0.36 (0.44) <sup>a</sup>	Pass
174	50.0 - 120.0% of mass 95	55160	82.7	Pass
175	4.0 - 9.01% of mass 174	3990	5.98 (7.23) <sup>a</sup>	Pass
176	93.0 - 101.0% of mass 174	52933	79.3 (96.0) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	3276	4.91 (6.19) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2W2709-IC2709	2W61010.D	08/19/22	11:22	00:32	Initial cal 0.04
V2W2709-IC2709	2W61011.D	08/19/22	11:55	01:05	Initial cal 0.1
V2W2709-IC2709	2W61012.D	08/19/22	12:27	01:37	Initial cal 0.2
V2W2709-IC2709	2W61013.D	08/19/22	12:59	02:09	Initial cal 0.5
V2W2709-IC2709	2W61015.D	08/19/22	14:02	03:12	Initial cal 5
V2W2709-ICC2709	2W61016.D	08/19/22	14:34	03:44	Initial cal 10
V2W2709-IC2709	2W61017.D	08/19/22	15:08	04:18	Initial cal 20
V2W2709-IC2709	2W61018.D	08/19/22	15:45	04:55	Initial cal 40
V2W2709-IC2709	2W61019.D	08/19/22	16:25	05:35	Initial cal 50
V2W2709-ICV2709	2W61022.D	08/19/22	18:00	07:10	Initial cal verification 10

5.5.1  
5

# Instrument Performance Check (BFB)

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

<b>Sample:</b> V2W2723-BFB	<b>Injection Date:</b> 09/13/22
<b>Lab File ID:</b> 2W61354.D	<b>Injection Time:</b> 10:28
<b>Instrument ID:</b> GCMS2W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	17075	24.2	Pass
75	30.0 - 66.0% of mass 95	37784	53.6	Pass
95	Base peak, 100% relative abundance	70507	100.0	Pass
96	5.0 - 9.0% of mass 95	4521	6.41	Pass
173	Less than 2.0% of mass 174	289	0.41 (0.51) <sup>a</sup>	Pass
174	50.0 - 120.0% of mass 95	56840	80.6	Pass
175	4.0 - 9.01% of mass 174	4028	5.71 (7.09) <sup>a</sup>	Pass
176	93.0 - 101.0% of mass 174	56821	80.6 (100.0) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	3738	5.30 (6.58) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2W2723-CC2709	2W61355.D	09/13/22	11:12	00:44	Continuing cal 10
V2W2723-BS	2W61356.D	09/13/22	12:00	01:32	Blank Spike
V2W2723-BSD	2W61357.D	09/13/22	12:33	02:05	Blank Spike Duplicate
V2W2723-MB	2W61359.D	09/13/22	14:12	03:44	Method Blank
ZZZZZZ	2W61360.D	09/13/22	14:57	04:29	(unrelated sample)
ZZZZZZ	2W61361.D	09/13/22	15:28	05:00	(unrelated sample)
ZZZZZZ	2W61362.D	09/13/22	16:00	05:32	(unrelated sample)
JD51423-1	2W61363.D	09/13/22	16:33	06:05	(used for QC only; not part of job JD51423R)
JD51423-1R	2W61363R.D	09/13/22	16:33	06:05	SG-1
JD51423-1DUP	2W61364.D	09/13/22	17:07	06:39	Duplicate
ZZZZZZ	2W61365.D	09/13/22	17:40	07:12	(unrelated sample)
JD51423-2R	2W61365R.D	09/13/22	17:40	07:12	SG-2
ZZZZZZ	2W61366.D	09/13/22	18:12	07:44	(unrelated sample)
JD51423-3R	2W61366R.D	09/13/22	18:12	07:44	SG-3
JD51423-4R	2W61367R.D	09/13/22	18:45	08:17	SG-4
ZZZZZZ	2W61367.D	09/13/22	18:45	08:17	(unrelated sample)
JD51423-5R	2W61368R.D	09/13/22	19:17	08:49	SG-5
ZZZZZZ	2W61368.D	09/13/22	19:17	08:49	(unrelated sample)
JD51423-6R	2W61369R.D	09/13/22	19:51	09:23	SG-6
ZZZZZZ	2W61369.D	09/13/22	19:51	09:23	(unrelated sample)
ZZZZZZ	2W61370.D	09/13/22	20:24	09:56	(unrelated sample)
JD51423-7R	2W61370R.D	09/13/22	20:24	09:56	SG-7
JD51423-8R	2W61371R.D	09/13/22	20:57	10:29	SSV-1
ZZZZZZ	2W61371.D	09/13/22	20:57	10:29	(unrelated sample)

5.5.2  
5

# Instrument Performance Check (BFB)

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

<b>Sample:</b> V2W2723-BFB	<b>Injection Date:</b> 09/13/22
<b>Lab File ID:</b> 2W61354.D	<b>Injection Time:</b> 10:28
<b>Instrument ID:</b> GCMS2W	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2W61372.D	09/13/22	21:31	11:03	(unrelated sample)
JD51423-9R	2W61372R.D	09/13/22	21:31	11:03	SSV-2
ZZZZZZ	2W61373.D	09/13/22	22:04	11:36	(unrelated sample)
JD51423-10R	2W61373R.D	09/13/22	22:04	11:36	SG-DUP
ZZZZZZ	2W61374.D	09/13/22	22:36	12:08	(unrelated sample)
ZZZZZZ	2W61375.D	09/13/22	23:09	12:41	(unrelated sample)

5.5.2  
5

# Instrument Performance Check (BFB)

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

<b>Sample:</b> V6W1077-BFB	<b>Injection Date:</b> 08/04/22
<b>Lab File ID:</b> 6W25315.D	<b>Injection Time:</b> 17:09
<b>Instrument ID:</b> GCMS6W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	11429	23.1	Pass
75	30.0 - 66.0% of mass 95	25645	51.8	Pass
95	Base peak, 100% relative abundance	49485	100.0	Pass
96	5.0 - 9.0% of mass 95	3335	6.74	Pass
173	Less than 2.0% of mass 174	242	0.49 (0.61) <sup>a</sup>	Pass
174	50.0 - 120.0% of mass 95	39416	79.7	Pass
175	4.0 - 9.01% of mass 174	2844	5.75 (7.22) <sup>a</sup>	Pass
176	93.0 - 101.0% of mass 174	38541	77.9 (97.8) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	2529	5.11 (6.56) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V6W1077-IC1077	6W25316.D	08/04/22	17:54	00:45	Initial cal 0.04
V6W1077-IC1077	6W25317.D	08/04/22	18:39	01:30	Initial cal 0.1
V6W1077-IC1077	6W25318.D	08/04/22	19:25	02:16	Initial cal 0.2
V6W1077-IC1077	6W25319.D	08/04/22	20:11	03:02	Initial cal 0.5
V6W1077-IC1077	6W25321.D	08/04/22	21:41	04:32	Initial cal 5
V6W1077-ICC1077	6W25322.D	08/04/22	22:26	05:17	Initial cal 10
V6W1077-IC1077	6W25323.D	08/04/22	23:14	06:05	Initial cal 20
V6W1077-IC1077	6W25324.D	08/05/22	00:05	06:56	Initial cal 40
V6W1077-IC1077	6W25325.D	08/05/22	00:59	07:50	Initial cal 50
V6W1077-ICV1077	6W25328.D	08/05/22	03:17	10:08	Initial cal verification 10

5.5.3  
5

# Instrument Performance Check (BFB)

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

<b>Sample:</b> V6W1078-BFB	<b>Injection Date:</b> 08/05/22
<b>Lab File ID:</b> 6W25333.D	<b>Injection Time:</b> 13:52
<b>Instrument ID:</b> GCMS6W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	11250	19.4	Pass
75	30.0 - 66.0% of mass 95	29563	51.0	Pass
95	Base peak, 100% relative abundance	57968	100.0	Pass
96	5.0 - 9.0% of mass 95	3849	6.64	Pass
173	Less than 2.0% of mass 174	316	0.55 (0.65) <sup>a</sup>	Pass
174	50.0 - 120.0% of mass 95	48840	84.3	Pass
175	4.0 - 9.01% of mass 174	3438	5.93 (7.04) <sup>a</sup>	Pass
176	93.0 - 101.0% of mass 174	46883	80.9 (96.0) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	2976	5.13 (6.35) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V6W1078-CC1077	6W25334.D	08/05/22	14:38	00:46	Continuing cal 10
V6W1078-BS	6W25335.D	08/05/22	15:24	01:32	Blank Spike
V6W1078-BSD	6W25336.D	08/05/22	16:11	02:19	Blank Spike Duplicate
V6W1078-MB	6W25338.D	08/05/22	17:47	03:55	Method Blank
ZZZZZZ	6W25339.D	08/05/22	18:32	04:40	(unrelated sample)
ZZZZZZ	6W25340.D	08/05/22	19:18	05:26	(unrelated sample)
V6W1078-SCC	6W25342.D	08/05/22	20:50	06:58	Summa Cleaning Certification
V6W1078-SCC	6W25343.D	08/05/22	21:35	07:43	Summa Cleaning Certification
V6W1078-SCC	6W25344.D	08/05/22	22:21	08:29	Summa Cleaning Certification
V6W1078-SCC	6W25348.D	08/06/22	01:46	11:54	Summa Cleaning Certification
V6W1078-SCC	6W25349.D	08/06/22	02:38	12:46	Summa Cleaning Certification
V6W1078-SCC	6W25350.D	08/06/22	03:29	13:37	Summa Cleaning Certification
V6W1078-SCC	6W25351.D	08/06/22	04:14	14:22	Summa Cleaning Certification
V6W1078-SCC	6W25352.D	08/06/22	05:02	15:10	Summa Cleaning Certification

5.5.4  
5

# Surrogate Recovery Summary

**Job Number:** JD51423R  
**Account:** HAHNCR Hart & Hickman  
**Project:** TCH-009, Chapel Hill, NC

**Method:** TO-15

**Matrix:** AIR

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1
JD51423-1R	2W61363R.D	99
JD51423-2R	2W61365R.D	99
JD51423-3R	2W61366R.D	100
JD51423-4R	2W61367R.D	100
JD51423-5R	2W61368R.D	102
JD51423-6R	2W61369R.D	99
JD51423-7R	2W61370R.D	100
JD51423-8R	2W61371R.D	101
JD51423-9R	2W61372R.D	99
JD51423-10R	2W61373R.D	101
JD51423-1DUP	2W61364.D	100
V2W2723-BS	2W61356.D	104
V2W2723-BSD	2W61357.D	105
V2W2723-MB	2W61359.D	99
V6W1078-SCC	6W25351.D	95
V6W1078-BS	6W25335.D	99
V6W1078-BSD	6W25336.D	98
V6W1078-MB	6W25338.D	97

Surrogate Compounds	Recovery Limits
S1 = 4-Bromofluorobenzene	65-128%



**EMSL Analytical, Inc.**

10801 Southern Loop Blvd, Pineville, NC 28134

Phone: (704) 525-2205 Fax: (704) 525-2382 Email: charlottelab@emsl.com

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Attn:

**Sean Horgan**  
**Hart & Hickman, PC**  
**3921 Sunset Ridge Road, Suite 301**  
**Raleigh, NC 27607**

9/16/2022

Phone: (919) 847-4241  
Fax: (919) 847-4261

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/12/2022. The results are tabulated on the attached data pages for the following client designated project:

**TCH-009**

The reference number for these samples is EMSL Order #412209078. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (704) 525-2205.

Approved By:

---

Lee Plumley, Laboratory Manager

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

10801 Southern Loop Blvd, Pineville, NC 28134

Phone/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com>[charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 412209078

CustomerID: HRT78

CustomerPO:

ProjectID:

Attn: **Sean Horgan**  
**Hart & Hickman, PC**  
**3921 Sunset Ridge Road, Suite 301**  
**Raleigh, NC 27607**

Phone: (919) 847-4241  
 Fax: (919) 847-4261  
 Received: 9/12/2022 08:45 AM  
 Collected: 9/2/2022

Project: TCH-009

**Analytical Results**

**Client Sample Description** SSV-1  
Sub Slab **Collected:** 9/2/2022 **Lab ID:** 412209078-0001

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
<b>METALS</b>					
Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00

**Client Sample Description** SSV-2  
Sub Slab **Collected:** 9/2/2022 **Lab ID:** 412209078-0002

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
<b>METALS</b>					
Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00

**Client Sample Description** SG-1  
Soil Gas **Collected:** 9/2/2022 **Lab ID:** 412209078-0003

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
<b>METALS</b>					
Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00

**Client Sample Description** SG-2  
Soil Gas **Collected:** 9/2/2022 **Lab ID:** 412209078-0004

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
<b>METALS</b>					
Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00

**Client Sample Description** SG-3  
Soil Gas **Collected:** 9/2/2022 **Lab ID:** 412209078-0005

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
<b>METALS</b>					
Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00



**EMSL Analytical, Inc.**

10801 Southern Loop Blvd, Pineville, NC 28134

Phone/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com>[charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 412209078

CustomerID: HRT78

CustomerPO:

ProjectID:

Attn: **Sean Horgan**  
**Hart & Hickman, PC**  
**3921 Sunset Ridge Road, Suite 301**  
**Raleigh, NC 27607**

Phone: (919) 847-4241  
 Fax: (919) 847-4261  
 Received: 9/12/2022 08:45 AM  
 Collected: 9/2/2022

Project: TCH-009

**Analytical Results**

**Client Sample Description** SG-4  
Soil Gas **Collected:** 9/2/2022 **Lab ID:** 412209078-0006

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
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**METALS**

Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00
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**Client Sample Description** SG-5  
Soil Gas **Collected:** 9/2/2022 **Lab ID:** 412209078-0007

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
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**METALS**

Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00
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**Client Sample Description** SG-6  
Soil Gas **Collected:** 9/2/2022 **Lab ID:** 412209078-0008

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
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**METALS**

Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00
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**Client Sample Description** SG-7  
Soil Gas **Collected:** 9/2/2022 **Lab ID:** 412209078-0009

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
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**METALS**

Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00
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**Client Sample Description** SG-DUP  
Soil Gas **Collected:** 9/2/2022 **Lab ID:** 412209078-0010

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
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**METALS**

Mercury by CVAA, NIOSH 6009	Mercury	ND	0.50 µg/m <sup>3</sup>	9/16/2022 AH	9/16/2022 AH 00:00
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**EMSL Analytical, Inc.**

10801 Southern Loop Blvd, Pineville, NC 28134

Phone/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com>[charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 412209078

CustomerID: HRTH78

CustomerPO:

ProjectID:

Attn: **Sean Horgan**  
**Hart & Hickman, PC**  
**3921 Sunset Ridge Road, Suite 301**  
**Raleigh, NC 27607**

Phone: (919) 847-4241  
 Fax: (919) 847-4261  
 Received: 9/12/2022 08:45 AM  
 Collected: 9/2/2022

Project: TCH-009

**Analytical Results**

**Client Sample Description** Field Blank  
Blank  
**Collected:** 9/2/2022  
**Lab ID:** 412209078-0011

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
<b>METALS</b>					
Mercury by CVAA, NIOSH 6009	Mercury	ND	0.010 µg/tube	9/16/2022 AH	9/16/2022 AH 00:00

**Definitions:**

MDL - method detection limit

J - Result was below the reporting limit, but at or above the MDL

ND - indicates that the analyte was not detected at the reporting limit

RL - Reporting Limit (Analytical)

D - Dilution Sample required a dilution which was used to calculate final results

**Appendix D**  
**DEQ Risk Calculators**

## North Carolina Department of Environmental Quality Risk Calculator

<b>Version Date:</b>	July 2022
<b>Basis:</b>	May 2022 EPA RSL Table
<b>Site Name:</b>	Town of Chapel Hill Police Department
<b>Site Address:</b>	828 Martin Luther King Jr. Blvd., Chapel Hill
<b>DEQ Section:</b>	Brownfields
<b>Site ID:</b>	23022-19068
<b>Exposure Unit ID:</b>	Worst Case (HH-12, HH-13, HH-14, HH-15) with background
<b>Submittal Date:</b>	
<b>Prepared By:</b>	Hart & Hickman, PC 3921 Sunset Ridge Road, Suite 301, Raleigh, NC
<b>Reviewed By:</b>	

Complete Exposure Pathways		Input Form 1A
<b>Version Date: July 2022</b>		
<b>Basis: May 2022 EPA RSL Table</b>		
<b>Site ID: 23022-19068</b>		
<b>Exposure Unit ID: Worst Case (HH-12, HH-13, HH-14, HH-15) with background</b>		
<i>Note: Risk output will only be calculated for complete exposure pathways.</i>		
Receptor	Pathway	Check box if pathway complete
<b>DIRECT CONTACT SOIL AND WATER PATHWAYS</b>		
Resident	Soil	<input type="checkbox"/>
	Groundwater Use	<input type="checkbox"/>
Non-Residential Worker	Soil	<input checked="" type="checkbox"/>
	Groundwater Use	<input type="checkbox"/>
Construction Worker	Soil	<input type="checkbox"/>
Recreator/Trespasser	Soil	<input type="checkbox"/>
	Surface Water	<input type="checkbox"/>
<b>VAPOR INTRUSION PATHWAYS</b>		
Resident	Groundwater to Indoor Air	<input type="checkbox"/>
	Soil Gas to Indoor Air	<input type="checkbox"/>
	Indoor Air	<input type="checkbox"/>
Non-Residential Worker	Groundwater to Indoor Air	<input type="checkbox"/>
	Soil Gas to Indoor Air	<input type="checkbox"/>
	Indoor Air	<input type="checkbox"/>
<b>CONTAMINANT MIGRATION PATHWAYS</b>		
Groundwater	Source Soil	<input type="checkbox"/>
	Source Groundwater	<input type="checkbox"/>
Surface Water	Source Soil	<input type="checkbox"/>
	Source Groundwater	<input type="checkbox"/>

Version Date: July 2022

Basis: May 2022 EPA RSL Table

Site ID: 23022-19068

Exposure Unit ID: Worst Case (HH-12, HH-13, HH-14, HH-15) with background

Soil Exposure Point Concentration Table

Description of Exposure Point Concentration Selection:

Worst Case Scenario HH-12, HH-13, HH-14, and HH-15

**NOTE: If the chemical list is changed from a prior calculator run, remember to select "See All Chemicals" on the data output sheet or newly added chemicals will not be included in risk calculations**

Exposure Point Concentration (mg/kg)	Notes:	CAS Number	Chemical <b>For the chemicals highlighted in blue, data entry notes are provided in the PSRG Table link on the Main Menu</b>	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (Screening Level) (n/c)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
0.067	HH-14	67-64-1	Acetone			mg/kg										
2	HH-14	7440-38-2	Arsenic, Inorganic			mg/kg										
65.6	HH-12	7440-39-3	Barium			mg/kg										
0.72	HH-12	7440-41-7	Beryllium and compounds			mg/kg										
0.045	HH-12	7440-43-9	Cadmium (Diet)			mg/kg										
0.0047	HH-14 DUP	108-90-7	Chlorobenzene			mg/kg										
15.4	HH-13	16065-83-1	Chromium(III), Insoluble Salts			mg/kg										
0.583	HH-12	18540-29-9	Chromium(VI)			mg/kg										
13.1	HH-12	7440-48-4	Cobalt			mg/kg										
26.6	HH-12	7440-50-8	Copper			mg/kg										
0.0057	HH-14 DUP	100-41-4	Ethylbenzene			mg/kg										
368	HH-13	7439-96-5	Manganese (Non-diet)			mg/kg										
0.041	HH-14	7487-94-7	~Mercuric Chloride (and other Mercury salts)			mg/kg										
17.1	HH-12	7440-02-0	Nickel Soluble Salts			mg/kg										
0.64	HH-14	7782-49-2	Selenium			mg/kg										
21.8	HH-12	7440-24-6	Strontium, Stable			mg/kg										
0.096	HH-14	7440-28-0	Thallium (Soluble Salts)			mg/kg										
0.011	HH-14	108-88-3	Toluene			mg/kg										
59.3	HH-12	7440-62-2	Vanadium and Compounds			mg/kg										
0.021	HH-14 DUP	1330-20-7	Xylenes			mg/kg										

**Version Date:** July 2022

**Basis:** May 2022 EPA RSL Table

**Site ID:** 23022-19068

**Exposure Unit ID:** Worst Case (HH-12, HH-13, HH-14, HH-15) with background

**DIRECT CONTACT SOIL AND WATER CALCULATORS**

Receptor	Pathway	Carcinogenic Risk	Hazard Index	Risk exceeded?
Resident	Soil	NC	NC	NC
	Groundwater Use*	NC	NC	NC
Non-Residential Worker	Soil	7.6E-07	7.6E-02	NO
	Groundwater Use*	NC	NC	NC
Construction Worker	Soil	NC	NC	NC
Recreator/Trespasser	Soil	NC	NC	NC
	Surface Water*	NC	NC	NC

**VAPOR INTRUSION CALCULATORS**

Receptor	Pathway	Carcinogenic Risk	Hazard Index	Risk exceeded?
Resident	Groundwater to Indoor Air	NC	NC	NC
	Soil Gas to Indoor Air	NC	NC	NC
	Indoor Air	NC	NC	NC
Non-Residential Worker	Groundwater to Indoor Air	NC	NC	NC
	Soil Gas to Indoor Air	NC	NC	NC
	Indoor Air	NC	NC	NC

**CONTAMINANT MIGRATION CALCULATORS**

Pathway	Source	Target Receptor Concentrations Exceeded?	
Groundwater	Source Soil	Exceedence of 2L at Receptor?	NC
	Source Groundwater	Exceedence of 2L at Receptor?	NC
Surface Water	Source Soil	Exceedence of 2B at Receptor?	NC
	Source Groundwater	Exceedence of 2B at Receptor?	NC

**Notes:**

1. If lead concentrations were entered in the exposure point concentration tables, see the individual calculator sheets for lead concentrations in comparison to screening levels. Note that lead is not included in cumulative risk calculations.
2. \* = If concentrations in groundwater exceed the NC 2L Standards or IMAC, or concentrations in surface water exceed the NC 2B Standards, appropriate remediation and/or institutional control measures will be necessary to be eligible for a risk-based closure.
3. NM = Not Modeled
4. NC = Pathway not calculated

Version Date: July 2022

Basis: May 2022 EPA RSL Table

Site ID: 23022-19068

Exposure Unit ID: Worst Case (HH-12, HH-13, HH-14, HH-15) with background

\* - Note that inhalation on this calculator refers to outdoor inhalation of volatiles and particulates, not indoor inhalation associated with vapor intrusion.

\*\* - Note that the EPA has no consensus on reference dose or cancer slope factor values for lead, therefore it is not possible to calculate cancer risk or hazard quotient. Lead concentrations are compared to the EPA screening level of 800 mg/kg for commercial/industrial soil.

CAS #	Chemical Name:	Ingestion Concentration (mg/kg)	Dermal Concentration (mg/kg)	Inhalation Concentration (mg/kg)*	Ingestion Carcinogenic Risk	Dermal Carcinogenic Risk	Inhalation Carcinogenic Risk	Calculated Carcinogenic Risk	Ingestion Hazard Quotient	Dermal Hazard Quotient	Inhalation Hazard Quotient	Calculated Non-Carcinogenic Hazard Quotient
67-64-1	Acetone	0.067	0.067	0.067					6.4E-08			6.4E-08
7440-38-2	Arsenic, Inorganic	2	2	2	5.5E-07	1.2E-07	1.2E-11	6.7E-07	3.4E-03	7.2E-04	5.1E-07	4.1E-03
7440-39-3	Barium	65.6	65.6	65.6					2.8E-04		5.0E-07	2.8E-04
7440-41-7	Beryllium and compounds	0.72	0.72	0.72			2.4E-12	2.4E-12	3.1E-04		1.4E-07	3.1E-04
7440-43-9	Cadmium (Diet)	0.045	0.045	0.045			1.1E-13	1.1E-13	3.9E-04	6.5E-05	1.7E-08	4.5E-04
108-90-7	Chlorobenzene	0.0047	0.0047	0.0047					2.0E-07		3.1E-06	3.3E-06
16065-83-1	Chromium(III), Insoluble Salts	15.4	15.4	15.4					8.8E-06			8.8E-06
18540-29-9	Chromium(VI)	0.583	0.583	0.583	8.9E-08		6.7E-11	8.9E-08	1.7E-04		2.2E-08	1.7E-04
7440-48-4	Cobalt	13.1	13.1	13.1			1.6E-10	1.6E-10	3.7E-02		8.4E-06	3.7E-02
7440-50-8	Copper	26.6	26.6	26.6					5.7E-04			5.7E-04
100-41-4	Ethylbenzene	0.0057	0.0057	0.0057	1.9E-11		1.9E-10	2.1E-10	9.8E-08		2.2E-07	3.1E-07
7439-96-5	Manganese (Non-diet)	368	368	368					1.3E-02		2.8E-05	1.3E-02
7487-94-7	--Mercuric Chloride (and other Mercury salts)	0.041	0.041	0.041					1.2E-04		5.3E-10	1.2E-04
7440-02-0	Nickel Soluble Salts	17.1	17.1	17.1			6.1E-12	6.1E-12	7.3E-04		7.3E-07	7.3E-04
7782-49-2	Selenium	0.64	0.64	0.64					1.1E-04		1.2E-10	1.1E-04
7440-24-6	Strontium, Stable	21.8	21.8	21.8					3.1E-05			3.1E-05
7440-28-0	Thallium (Soluble Salts)	0.096	0.096	0.096					8.2E-03			8.2E-03
108-88-3	Toluene	0.011	0.011	0.011					1.2E-07		1.1E-07	2.3E-07
7440-62-2	Vanadium and Compounds	59.3	59.3	59.3					1.0E-02		2.3E-06	1.0E-02
1330-20-7	Xylenes	0.021	0.021	0.021					9.0E-08		7.8E-06	7.9E-06

Cumulative:

7.6E-07

7.6E-02



## North Carolina Department of Environmental Quality Risk Calculator

<b>Version Date:</b>	July 2022
<b>Basis:</b>	May 2022 EPA RSL Table
<b>Site Name:</b>	Town of Chapel Hill Police Department
<b>Site Address:</b>	828 Martin Luther King Jr. Blvd., Chapel Hill
<b>DEQ Section:</b>	Brownfields
<b>Site ID:</b>	23022-19068
<b>Exposure Unit ID:</b>	Worst Case (HH-12, HH-13, HH-14, HH-15) without background
<b>Submittal Date:</b>	
<b>Prepared By:</b>	Hart & Hickman, PC 3921 Sunset Ridge Road, Suite 301, Raleigh, NC
<b>Reviewed By:</b>	

Complete Exposure Pathways		Input Form 1A
<b>Version Date: July 2022</b>		
<b>Basis: May 2022 EPA RSL Table</b>		
<b>Site ID: 23022-19068</b>		
<b>Exposure Unit ID: Worst Case (HH-12, HH-13, HH-14, HH-15) without background</b>		
<i>Note: Risk output will only be calculated for complete exposure pathways.</i>		
Receptor	Pathway	Check box if pathway complete
<b>DIRECT CONTACT SOIL AND WATER PATHWAYS</b>		
Resident	Soil	<input type="checkbox"/>
	Groundwater Use	<input type="checkbox"/>
Non-Residential Worker	Soil	<input checked="" type="checkbox"/>
	Groundwater Use	<input type="checkbox"/>
Construction Worker	Soil	<input type="checkbox"/>
Recreator/Trespasser	Soil	<input type="checkbox"/>
	Surface Water	<input type="checkbox"/>
<b>VAPOR INTRUSION PATHWAYS</b>		
Resident	Groundwater to Indoor Air	<input type="checkbox"/>
	Soil Gas to Indoor Air	<input type="checkbox"/>
	Indoor Air	<input type="checkbox"/>
Non-Residential Worker	Groundwater to Indoor Air	<input type="checkbox"/>
	Soil Gas to Indoor Air	<input type="checkbox"/>
	Indoor Air	<input type="checkbox"/>
<b>CONTAMINANT MIGRATION PATHWAYS</b>		
Groundwater	Source Soil	<input type="checkbox"/>
	Source Groundwater	<input type="checkbox"/>
Surface Water	Source Soil	<input type="checkbox"/>
	Source Groundwater	<input type="checkbox"/>

Version Date: July 2022

Basis: May 2022 EPA RSL Table

Site ID: 23022-19068

Exposure Unit ID: Worst Case (HH-12, HH-13, HH-14, HH-15) without background

Soil Exposure Point Concentration Table

Description of Exposure Point Concentration Selection:

Worst Case Scenario HH-12, HH-13, HH-14, and HH-15

**NOTE: If the chemical list is changed from a prior calculator run, remember to select "See All Chemicals" on the data output sheet or newly added chemicals will not be included in risk calculations**

Exposure Point Concentration (mg/kg)	Notes:	CAS Number	Chemical <b>For the chemicals highlighted in blue, data entry notes are provided in the PSRG Table link on the Main Menu</b>	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (Screening Level) (n/c)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
0.067	HH-14	67-64-1	Acetone			mg/kg										
0.0047	HH-14 DUP	108-90-7	Chlorobenzene			mg/kg										
0.0057	HH-14 DUP	100-41-4	Ethylbenzene			mg/kg										
0.011	HH-14	108-88-3	Toluene			mg/kg										
0.021	HH-14 DUP	1330-20-7	Xylenes			mg/kg										

**Version Date:** July 2022

**Basis:** May 2022 EPA RSL Table

**Site ID:** 23022-19068

**Exposure Unit ID:** Worst Case (HH-12, HH-13, HH-14, HH-15) without background

**DIRECT CONTACT SOIL AND WATER CALCULATORS**

Receptor	Pathway	Carcinogenic Risk	Hazard Index	Risk exceeded?
Resident	Soil	NC	NC	NC
	Groundwater Use*	NC	NC	NC
Non-Residential Worker	Soil	2.1E-10	1.2E-05	NO
	Groundwater Use*	NC	NC	NC
Construction Worker	Soil	NC	NC	NC
Recreator/Trespasser	Soil	NC	NC	NC
	Surface Water*	NC	NC	NC

**VAPOR INTRUSION CALCULATORS**

Receptor	Pathway	Carcinogenic Risk	Hazard Index	Risk exceeded?
Resident	Groundwater to Indoor Air	NC	NC	NC
	Soil Gas to Indoor Air	NC	NC	NC
	Indoor Air	NC	NC	NC
Non-Residential Worker	Groundwater to Indoor Air	NC	NC	NC
	Soil Gas to Indoor Air	NC	NC	NC
	Indoor Air	NC	NC	NC

**CONTAMINANT MIGRATION CALCULATORS**

Pathway	Source	Target Receptor Concentrations Exceeded?	
Groundwater	Source Soil	Exceedence of 2L at Receptor?	NC
	Source Groundwater	Exceedence of 2L at Receptor?	NC
Surface Water	Source Soil	Exceedence of 2B at Receptor?	NC
	Source Groundwater	Exceedence of 2B at Receptor?	NC

**Notes:**

1. If lead concentrations were entered in the exposure point concentration tables, see the individual calculator sheets for lead concentrations in comparison to screening levels. Note that lead is not included in cumulative risk calculations.
2. \* = If concentrations in groundwater exceed the NC 2L Standards or IMAC, or concentrations in surface water exceed the NC 2B Standards, appropriate remediation and/or institutional control measures will be necessary to be eligible for a risk-based closure.
3. NM = Not Modeled
4. NC = Pathway not calculated

Version Date: July 2022

Basis: May 2022 EPA RSL Table

Site ID: 23022-19068

Exposure Unit ID: Worst Case (HH-12, HH-13, HH-14, HH-15) without background

\* - Note that inhalation on this calculator refers to outdoor inhalation of volatiles and particulates, not indoor inhalation associated with vapor intrusion.

\*\* - Note that the EPA has no consensus on reference dose or cancer slope factor values for lead, therefore it is not possible to calculate cancer risk or hazard quotient. Lead concentrations are compared to the EPA screening level of 800 mg/kg for commercial/industrial soil.

CAS #	Chemical Name:	Ingestion Concentration (mg/kg)	Dermal Concentration (mg/kg)	Inhalation Concentration (mg/kg)*	Ingestion Carcinogenic Risk	Dermal Carcinogenic Risk	Inhalation Carcinogenic Risk	Calculated Carcinogenic Risk	Ingestion Hazard Quotient	Dermal Hazard Quotient	Inhalation Hazard Quotient	Calculated Non-Carcinogenic Hazard Quotient
67-64-1	Acetone	0.067	0.067	0.067					6.4E-08			6.4E-08
108-90-7	Chlorobenzene	0.0047	0.0047	0.0047					2.0E-07		3.1E-06	3.3E-06
100-41-4	Ethylbenzene	0.0057	0.0057	0.0057	1.9E-11		1.9E-10	2.1E-10	9.8E-08		2.2E-07	3.1E-07
108-88-3	Toluene	0.011	0.011	0.011					1.2E-07		1.1E-07	2.3E-07
1330-20-7	Xylenes	0.021	0.021	0.021					9.0E-08		7.8E-06	7.9E-06

Cumulative:

2.1E-10

1.2E-05

## North Carolina Department of Environmental Quality Risk Calculator

<b>Version Date:</b>	July 2022
<b>Basis:</b>	May 2022 EPA RSL Table
<b>Site Name:</b>	Town of Chapel Hill Police Department
<b>Site Address:</b>	828 Martin Luther King Jr. Blvd., Chapel Hill
<b>DEQ Section:</b>	Brownfields
<b>Site ID:</b>	23022-19068
<b>Exposure Unit ID:</b>	Worst Case - Soil Gas and Sub-Slab Vapor
<b>Submittal Date:</b>	
<b>Prepared By:</b>	Hart & Hickman, PC 3921 Sunset Ridge Road, Suite 301, Raleigh, NC
<b>Reviewed By:</b>	

Complete Exposure Pathways		Input Form 1A
<b>Version Date: July 2022</b>		
<b>Basis: May 2022 EPA RSL Table</b>		
<b>Site ID: 23022-19068</b>		
<b>Exposure Unit ID: Worst Case - Soil Gas and Sub-Slab Vapor</b>		
<i>Note: Risk output will only be calculated for complete exposure pathways.</i>		
Receptor	Pathway	Check box if pathway complete
<b>DIRECT CONTACT SOIL AND WATER PATHWAYS</b>		
Resident	Soil	<input type="checkbox"/>
	Groundwater Use	<input type="checkbox"/>
Non-Residential Worker	Soil	<input type="checkbox"/>
	Groundwater Use	<input type="checkbox"/>
Construction Worker	Soil	<input type="checkbox"/>
Recreator/Trespasser	Soil	<input type="checkbox"/>
	Surface Water	<input type="checkbox"/>
<b>VAPOR INTRUSION PATHWAYS</b>		
Resident	Groundwater to Indoor Air	<input type="checkbox"/>
	Soil Gas to Indoor Air	<input type="checkbox"/>
	Indoor Air	<input type="checkbox"/>
Non-Residential Worker	Groundwater to Indoor Air	<input type="checkbox"/>
	Soil Gas to Indoor Air	<input checked="" type="checkbox"/>
	Indoor Air	<input type="checkbox"/>
<b>CONTAMINANT MIGRATION PATHWAYS</b>		
Groundwater	Source Soil	<input type="checkbox"/>
	Source Groundwater	<input type="checkbox"/>
Surface Water	Source Soil	<input type="checkbox"/>
	Source Groundwater	<input type="checkbox"/>

Exposure Point Concentrations

Version Date: July 2022

Basis: May 2022 EPA RSL Table

Site ID: 23022-19068

Exposure Unit ID: Worst Case - Soil Gas and Sub-Slab Vapor

Soil Gas Exposure Point Concentration Table

Description of Exposure Point Concentration Selection:

Worst Case - SG-1, SG-2, SG-3, SG-5, SG-6, SG-7, SSV-1, and SSV-2

Note: Chemicals highlighted in orange are non-volatile chemicals. Since these chemicals do not pose a vapor intrusion risk, no risk values are calculated for these chemicals.

If the chemical list is changed from a prior calculator run, remember to select "See All Chemicals" on the data output sheet or newly added chemicals will not be included in risk calculations

Exposure Point Concentration (ug/m <sup>3</sup> )	Notes:	CAS Number	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (Screening Level) (n/c)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
207	SSV-1	67-64-1	Acetone			ug/m <sup>3</sup>										
3.1	SG-3	71-43-2	Benzene			ug/m <sup>3</sup>										
8	SG-6	75-27-4	Bromodichloromethane			ug/m <sup>3</sup>										
3	SG-3	74-83-9	Bromomethane			ug/m <sup>3</sup>										
124	SG-3	75-15-0	Carbon Disulfide			ug/m <sup>3</sup>										
3.5	SG-5	56-23-5	Carbon Tetrachloride			ug/m <sup>3</sup>										
45	SG-6	67-66-3	Chloroform			ug/m <sup>3</sup>										
1.8	SG-7 DUP	74-87-3	Chloromethane			ug/m <sup>3</sup>										
33	SG-2	110-82-7	Cyclohexane			ug/m <sup>3</sup>										
2.6	SG-1	75-71-8	Dichlorodifluoromethane			ug/m <sup>3</sup>										
46.5	SG-5	75-34-3	Dichloroethane, 1,1-			ug/m <sup>3</sup>										
6.1	SG-5	107-06-2	Dichloroethane, 1,2-			ug/m <sup>3</sup>										
6.7	SG-5	75-35-4	Dichloroethylene, 1,1-			ug/m <sup>3</sup>										
347	SG-5	156-59-2	Dichloroethylene, cis-1,2-			ug/m <sup>3</sup>										
525	SG-1	141-78-6	Ethyl Acetate			ug/m <sup>3</sup>										
1	SG-5	75-00-3	Ethyl Chloride (Chloroethane)			ug/m <sup>3</sup>										
18	SG-3	100-41-4	Ethylbenzene			ug/m <sup>3</sup>										
2.9	SG-5	109-99-9	~Tetrahydrofuran			ug/m <sup>3</sup>										
5.7	SG-3	142-82-5	Heptane, N-			ug/m <sup>3</sup>										
12	SG-3	110-54-3	Hexane, N-			ug/m <sup>3</sup>										
9	SG-3	591-78-6	Hexanone, 2-			ug/m <sup>3</sup>										
226	SSV-2	67-63-0	Isopropanol			ug/m <sup>3</sup>										
36	SG-3	78-93-3	Methyl Ethyl Ketone (2-Butanone)			ug/m <sup>3</sup>										
25	SSV-1	108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)			ug/m <sup>3</sup>										
10	SG-5	75-09-2	Methylene Chloride			ug/m <sup>3</sup>										
222	SG-3	115-07-1	Propylene			ug/m <sup>3</sup>										
2.2	SG-3	100-42-5	Styrene			ug/m <sup>3</sup>										
81.4	SG-6	127-18-4	Tetrachloroethylene			ug/m <sup>3</sup>										
124	SG-3	108-88-3	Toluene			ug/m <sup>3</sup>										
212	SG-5	71-55-6	Trichloroethane, 1,1,1-			ug/m <sup>3</sup>										
39	SG-3	79-01-6	Trichloroethylene			ug/m <sup>3</sup>										
3.1	SG-2	75-69-4	Trichlorofluoromethane			ug/m <sup>3</sup>										
6.9	SG-3	95-63-6	Trimethylbenzene, 1,2,4-			ug/m <sup>3</sup>										
2.7	SG-3	108-67-8	Trimethylbenzene, 1,3,5-			ug/m <sup>3</sup>										
4.6	SG-7 DUP	108-05-4	Vinyl Acetate			ug/m <sup>3</sup>										
5.1	SG-5	75-01-4	Vinyl Chloride			ug/m <sup>3</sup>										
46.9	SG-3	1330-20-7	Xylenes			ug/m <sup>3</sup>										



**Version Date:** July 2022

**Basis:** May 2022 EPA RSL Table

**Site ID:** 23022-19068

**Exposure Unit ID:** Worst Case - Soil Gas and Sub-Slab Vapor

**DIRECT CONTACT SOIL AND WATER CALCULATORS**

Receptor	Pathway	Carcinogenic Risk	Hazard Index	Risk exceeded?
Resident	Soil	NC	NC	NC
	Groundwater Use*	NC	NC	NC
Non-Residential Worker	Soil	NC	NC	NC
	Groundwater Use*	NC	NC	NC
Construction Worker	Soil	NC	NC	NC
Recreator/Trespasser	Soil	NC	NC	NC
	Surface Water*	NC	NC	NC

**VAPOR INTRUSION CALCULATORS**

Receptor	Pathway	Carcinogenic Risk	Hazard Index	Risk exceeded?
Resident	Groundwater to Indoor Air	NC	NC	NC
	Soil Gas to Indoor Air	NC	NC	NC
	Indoor Air	NC	NC	NC
Non-Residential Worker	Groundwater to Indoor Air	NC	NC	NC
	Soil Gas to Indoor Air	1.5E-06	7.7E-02	NO
	Indoor Air	NC	NC	NC

**CONTAMINANT MIGRATION CALCULATORS**

Pathway	Source	Target Receptor Concentrations Exceeded?	
Groundwater	Source Soil	Exceedence of 2L at Receptor?	NC
	Source Groundwater	Exceedence of 2L at Receptor?	NC
Surface Water	Source Soil	Exceedence of 2B at Receptor?	NC
	Source Groundwater	Exceedence of 2B at Receptor?	NC

**Notes:**

1. If lead concentrations were entered in the exposure point concentration tables, see the individual calculator sheets for lead concentrations in comparison to screening levels. Note that lead is not included in cumulative risk calculations.
2. \* = If concentrations in groundwater exceed the NC 2L Standards or IMAC, or concentrations in surface water exceed the NC 2B Standards, appropriate remediation and/or institutional control measures will be necessary to be eligible for a risk-based closure.
3. NM = Not Modeled
4. NC = Pathway not calculated

Version Date: July 2022

Basis: May 2022 EPA RSL Table

Site ID: 23022-19068

Exposure Unit ID: Worst Case - Soil Gas and Sub-Slab Vapor

Carcinogenic risk and hazard quotient cells highlighted in orange are associated with non-volatile chemicals. Since these chemicals do not pose a vapor intrusion risk, no risk values are calculated for these chemicals.

All concentrations are in ug/m<sup>3</sup>

CAS #	Chemical Name:	Soil Gas Concentration (ug/m <sup>3</sup> )	Calculated Indoor Air Concentration (ug/m <sup>3</sup> )	Target Indoor Air Conc. for Carcinogens @ TCR = 1E-06	Target Indoor Air Conc. for Non-Carcinogens @ THQ = 0.2	Calculated Carcinogenic Risk	Calculated Non-Carcinogenic Hazard Quotient
67-64-1	Acetone	207	2.07	-	-		
71-43-2	Benzene	3.1	0.031	1.6E+00	2.6E+01	2.0E-08	2.4E-04
75-27-4	Bromodichloromethane	8	0.08	3.3E-01	-	2.4E-07	
74-83-9	Bromomethane	3	0.03	-	4.4E+00		1.4E-03
75-15-0	Carbon Disulfide	124	1.24	-	6.1E+02		4.0E-04
56-23-5	Carbon Tetrachloride	3.5	0.035	2.0E+00	8.8E+01	1.7E-08	8.0E-05
67-66-3	Chloroform	45	0.45	5.3E-01	8.6E+01	8.4E-07	1.0E-03
74-87-3	Chloromethane	1.8	0.018	-	7.9E+01		4.6E-05
110-82-7	Cyclohexane	33	0.33	-	5.3E+03		1.3E-05
75-71-8	Dichlorodifluoromethane	2.6	0.026	-	8.8E+01		5.9E-05
75-34-3	Dichloroethane, 1,1-	46.5	0.465	7.7E+00	-	6.1E-08	
107-06-2	Dichloroethane, 1,2-	6.1	0.061	4.7E-01	6.1E+00	1.3E-07	2.0E-03
75-35-4	Dichloroethylene, 1,1-	6.7	0.067	-	1.8E+02		7.6E-05
156-59-2	Dichloroethylene, cis-1,2-	347	3.47	-	-		
141-78-6	Ethyl Acetate	525	5.25	-	6.1E+01		1.7E-02
75-00-3	Ethyl Chloride (Chloroethane)	1	0.01	-	3.5E+03		5.7E-07
100-41-4	Ethylbenzene	18	0.18	4.9E+00	8.8E+02	3.7E-08	4.1E-05
109-99-9	~Tetrahydrofuran	2.9	0.029	-	1.8E+03		3.3E-06
142-82-5	Heptane, N-	5.7	0.057	-	3.5E+02		3.3E-05
110-54-3	Hexane, N-	12	0.12	-	6.1E+02		3.9E-05
591-78-6	Hexanone, 2-	9	0.09	-	2.6E+01		6.8E-04
67-63-0	Isopropanol	226	2.26	-	1.8E+02		2.6E-03
78-93-3	Methyl Ethyl Ketone (2-Butanone)	36	0.36	-	4.4E+03		1.6E-05
108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)	25	0.25	-	2.6E+03		1.9E-05
75-09-2	Methylene Chloride	10	0.1	1.2E+03	5.3E+02	8.2E-11	3.8E-05
115-07-1	Propylene	222	2.22	-	2.6E+03		1.7E-04
100-42-5	Styrene	2.2	0.022	-	8.8E+02		5.0E-06
127-18-4	Tetrachloroethylene	81.4	0.814	4.7E+01	3.5E+01	1.7E-08	4.6E-03
108-88-3	Toluene	124	1.24	-	4.4E+03		5.7E-05
71-55-6	Trichloroethane, 1,1,1-	212	2.12	-	4.4E+03		9.7E-05
79-01-6	Trichloroethylene	39	0.39	3.0E+00	1.8E+00	1.3E-07	4.5E-02
75-69-4	Trichlorofluoromethane	3.1	0.031	-	-		
95-63-6	Trimethylbenzene, 1,2,4-	6.9	0.069	-	5.3E+01		2.6E-04
108-67-8	Trimethylbenzene, 1,3,5-	2.7	0.027	-	5.3E+01		1.0E-04
108-05-4	Vinyl Acetate	4.6	0.046	-	1.8E+02		5.3E-05
75-01-4	Vinyl Chloride	5.1	0.051	2.8E+00	7.0E+01	1.8E-08	1.5E-04
1330-20-7	Xylenes	46.9	0.469	-	8.8E+01		1.1E-03

Cumulative:	1.5E-06	7.7E-02
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## **Appendix E**

### **Low Flow Perched Water and Groundwater Sampling Records**



Stabilization Criteria	
Primary:	Secondary:
pH +/- 0.1 unit	DO +/- 0.2 mg/L
S. Cond. +/- 5%	ORP +/- 10mV
Turb. +/- 10% (<10 NTUs for metals)	
Water Level: slight or stable drawdown during purging	

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

Job No: TCH-009

Well ID: MW-1

Well Location: \_\_\_\_\_

Date: 8/31/22

Facility Name: Town of Chapel Hill Police Department

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: PVC Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): 40 Depth to Water (ft): 37.65 Well Diameter: 2"

Sampling Personnel: SPH Screen Interval (ft bgs): 30 - 40

Type of Pump: Bladder Tubing Material: Bonded Poly Pump/Tubing set at: \_\_\_\_\_ ft.

Weather Conditions: Clear, 80s NOTES: Begin pumping 1445

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
1450	37.77								+++
1500	Top of pump								4.4

Other Sample Parameters: \_\_\_\_\_

Sampled at: \_\_\_\_\_ Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

**Stabilization Criteria**

**Primary:** pH +/- 0.1 unit  
S. Cond. +/- 5%  
Turb. +/- 10% (<10 NTUs for metals)  
Water Level: slight or stable drawdown during purging

**Secondary:** DO +/- 0.2 mg/L  
ORP +/- 10mV

Job No: TCH-009

Well ID: MW-1A

Well Location:

Date:

Facility Name: Town of Chapel Hill Police Department

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: \_\_\_\_\_ Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): 40 Depth to Water (ft): \_\_\_\_\_ Well Diameter: \_\_\_\_\_

Sampling Personnel: SPH Screen Interval (ft bgs): 25 - 40

Type of Pump: Bladder Tubing Material: Bonded Poly Pump/Tubing set at: 32.29 ft.

Weather Conditions: \_\_\_\_\_ NOTES: Begin pumping 1510

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
1520	32.52		100 mL/min	1.22	20.1	1348	6.75	-41.4	234.3
1530	33.70		100	1.67	19.7	1338	6.75	-41.1	173.9
1540	33.74		100	1.33	20.7	1328	6.72	-44.3	136.5
1550	33.76		100	1.29	20.7	1309	6.71	-44.8	87.22
1600	33.79		100	1.28	20.4	1288	6.72	-44.7	29.61
1610	33.79		100	1.21	20.4	1277	6.71	-44.6	20.21
1615	33.81		100	1.30	20.5	1277	6.73	-	16.81
1620	33.83		100	1.28	20.5	1275	6.72	44.5	12.69
1625	33.84		100	1.27	20.5	1275	6.72	43.9	9.01

Other Sample Parameters: \_\_\_\_\_

Sampled at: 1630 Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

**Stabilization Criteria**  
**Primary:** pH +/- 0.1 unit  
**Secondary:** DO +/- 0.2 mg/L  
 S. Cond. +/- 5% ORP +/- 10mV  
 Turb. +/- 10% (<10 NTUs for metals)  
 Water Level: slight or stable drawdown during purging

Job No: TCH-009

Well ID: MW-3A

Well Location:

Date: 8/30/22

Facility Name: Town of Chapel Hill Police Department

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: \_\_\_\_\_ Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): \_\_\_\_\_ Depth to Water (ft): 4.84 Well Diameter: \_\_\_\_\_

Sampling Personnel: SPH Screen Interval (ft bgs): \_\_\_\_\_

Type of Pump: Peri Tubing Material: Poly Pump/Tubing set at: \_\_\_\_\_ ft.

Weather Conditions: \_\_\_\_\_ NOTES: 1540 Begin pumping

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
1545	4.85			0.98	24.0	1334	6.45	64.4	16.21
1550	4.86			0.50	24.1	1330	6.51	61.7	19.40
1555	4.87			0.32	23.6	1332	6.55	59.7	16.49
1600	4.89			0.29	23.5	1329	6.56	57.0	7.35
1605	4.89			0.26	23.6	1327	6.53	55.5	3.97
1610	4.90			0.24	23.5	1325	6.52	53.2	2.52

Other Sample Parameters: \_\_\_\_\_

Sampled at: 1615 Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS



SMARTER ENVIRONMENTAL SOLUTIONS

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

**Stabilization Criteria**

**Primary:** pH +/- 0.1 unit  
**Secondary:** DO +/- 0.2 mg/L  
 S. Cond. +/- 5% ORP +/- 10mV  
 Turb. +/- 10% (<10 NTUs for metals)  
 Water Level: slight or stable  
 drawdown during purging

Job No: TCH-009

Well ID: MW-44

Well Location:

Date: 8/31

Facility Name: Town of Chapel Hill Police Department

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: \_\_\_\_\_ Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): \_\_\_\_\_ Depth to Water (ft): 6.62 Well Diameter: \_\_\_\_\_

Sampling Personnel: \_\_\_\_\_ Screen Interval (ft bgs): \_\_\_\_\_

Type of Pump: \_\_\_\_\_ Tubing Material: \_\_\_\_\_ Pump/Tubing set at: \_\_\_\_\_ ft.

Weather Conditions: \_\_\_\_\_ NOTES: Begin pumping 905

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
910	6.74		100 ml/min	1.56	19.5	416.8	5.91	61.5	1.89
915	6.85		100	1.08	19.4	412.9	5.89	61.5	7.68
920	6.97		100	0.86	19.4	413.5	5.89	61.4	9.14
925	7.05		80 ml/min	0.64	19.6	417.1	5.90	61.1	9.07
930	7.10		80	0.57	19.6	420.4	5.90	61.3	8.73
935	7.14		80	0.42	19.6	430.0	5.90	61.9	9.01
940	7.17		80	0.43	19.6	431.0	5.90	61.5	7.92
945	7.20		80	0.40	19.6	432.3	5.90	61.5	8.55

Other Sample Parameters: \_\_\_\_\_

Sampled at: 950 Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS

**Stabilization Criteria**

**Primary:** pH +/- 0.1 unit  
S. Cond. +/- 5%  
Turb. +/- 10% (<10 NTUs for metals)  
Water Level: slight or stable drawdown during purging

**Secondary:** DO +/- 0.2 mg/L  
CRP +/- 10mV

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

Job No: TCH-009

Well ID: MW-5

Well Location:

Date: 9/30/22

Facility Name: Town of Chapel Hill Police Department

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: \_\_\_\_\_ Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): \_\_\_\_\_ Depth to Water (ft): 9.82 Well Diameter: \_\_\_\_\_

Sampling Personnel: SPH Screen Interval (ft bgs): 1 - 28

Type of Pump: Peristaltic Tubing Material: \_\_\_\_\_ Pump/Tubing set at: 20 ft.

Weather Conditions: Mostly sunny, 80s NOTES: Begin pumping 1245

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
1250	9.98		100 ml/min	1.66	24.0	807	6.94	4.0	-
1255	10.12		100	1.04	23.0	805	6.97	-8.2	31.17
1300	10.16		100	0.79	22.9	801	6.96	-14.1	18.21
1305	10.20		100	0.84	22.4	802	6.96	-15.2	16.42
1310	10.26		100	0.74	22.4	801	6.96	-16.3	13.01
1315	10.29		100	0.70	22.3	801	6.96	-16.8	11.23
1320	10.32		100	0.69	22.2	796	6.97	-16.4	7.30

Other Sample Parameters:

Sampled at: \_\_\_\_\_ Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS





SMARTER ENVIRONMENTAL SOLUTIONS

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

**Stabilization Criteria**  
**Primary:** pH +/- 0.1 unit  
**Secondary:** DO +/- 0.2 mg/L  
 S. Cond. +/- 5% ORP +/- 10mV  
 Turb. +/- 10% (<10 NTUs for metals)  
 Water Level: slight or stable drawdown during purging

Job No: TCH-009

Well ID: MW-6

Well Location:

Date: 8/30/22

Facility Name: Town of Chapel Hill Police Department

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: \_\_\_\_\_ Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): 17.5 Depth to Water (ft): 8.28 Well Diameter: 2"

Sampling Personnel: SPH Screen Interval (ft bgs): 7.5 - 17.5

Type of Pump: Peris Tubing Material: \_\_\_\_\_ Pump/Tubing set at: 14 ft.

Weather Conditions: \_\_\_\_\_ NOTES: Begin pumping 1435

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
1440	8.31		100 ml/min	1.49	22.7	544	6.24	-10.7	2.23
1445	8.33		100	0.59	21.7	539	6.43	-22.3	0.88
1455	8.34		100	0.34	21.7	540	6.39	-27.8	0.35
1500	8.36		100	0.33	21.5	539	6.37	-28.0	2.19
1505	8.36		100	0.32	21.8	538	6.34	-30.4	1.03

Other Sample Parameters: \_\_\_\_\_

Sampled at: 1510 Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

**Stabilization Criteria**

**Primary:** pH +/- 0.1 unit  
S. Cond. +/- 5%  
Turb. +/- 10% (<10 NTUs for metals)  
Water Level: slight or stable drawdown during purging

**Secondary:** DO +/- 0.2 mg/L  
ORP +/- 10mV

Job No: TCH-009

Well ID: MW-7

Well Location:

Date: 8/31/22

Facility Name: Town of Chapel Hill Police Department

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: \_\_\_\_\_ Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): 69.5 Depth to Water (ft): 47.64 Well Diameter: 2"

Sampling Personnel: SPH Screen Interval (ft bgs): 59.5 - 69.5

Type of Pump: Bladder Tubing Material: Bonded Poly Pump/Tubing set at: 65 ft.

Weather Conditions: Clear, 80s NOTES: \_\_\_\_\_

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
1910	47.54		100	2.01	18.9	109.4	5.95	85	
1915	47.91		80	1.52	18.6	107.4	5.95	87.5	68.16
1920	47.94		80	2.36	18.0	105.1	5.95	88.9	49.17
1925	47.96		80	2.46	17.9	104.8	5.96	91.8	38.85
1930	47.96		80	2.53	17.9	106.1	5.95	92.5	34.92
1935	47.96		80	2.54	17.8	106.6	5.96	92.9	21.58
1945	47.96		80	2.62	17.8	107.0	5.95	93.6	13.88
1955	47.97		80	2.59	17.8	107.5	5.95	94.0	13.88
2000									4.79

17.48

Other Sample Parameters:

Sampled at: 1800hr 2005 Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

**Stabilization Criteria**  
**Primary:** pH +/- 0.1 unit  
**Secondary:** DO +/- 0.2 mg/L  
 S. Cond. +/- 5% ORP +/- 10mV  
 Turb. +/- 10% (<10 NTUs for metals)  
 Water Level: slight or stable drawdown during purging

Job No: TCH-009

Well ID: MW-8

Well Location: \_\_\_\_\_

Date: 8/31/22

Facility Name: Town of Chapel Hill Police Department

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: \_\_\_\_\_ Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): 44.5 Depth to Water (ft): 40.73 Well Diameter: 2

Sampling Personnel: \_\_\_\_\_ Screen Interval (ft bgs): 29.5 - 44.5

Type of Pump: Bladder Tubing Material: Bonded Poly Pump/Tubing set at: 43.5 ft.

Weather Conditions: \_\_\_\_\_ NOTES: \_\_\_\_\_

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
1725	40.80		60	1.51	23.2	670	6.26	9.9	42.16
1730	40.81		60	1.16	22.6	667	6.30	1.5	27.66
1735	40.82		60	1.26	22.1	666	6.31	-4.7	17.00
1740	40.81		60	1.15	22.0	667	6.31	-6.9	12.18
1745	40.81		60	1.05	22.0	668	6.31	-10.0	5.53
1750	40.81		60	1.02	22.0	667	6.31	-16.0	3.74
1755	40.81		60	1.03	21.8	669	6.31	-11.6	4.13

Other Sample Parameters: \_\_\_\_\_

Sampled at: 1800 Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS + GW - DUP

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

**Stabilization Criteria**  
**Primary:** pH +/- 0.1 unit  
 S. Cond. +/- 5%  
 Turb. +/- 10% (<10 NTUs for metals)  
 Water Level: slight or stable drawdown during purging  
**Secondary:** DO +/- 0.2 mg/L  
 ORP +/- 10mV

Job No: TCH-009

Well ID: MW-9

Well Location: \_\_\_\_\_

Date: \_\_\_\_\_

Facility Name: Town of Chapel Hill Police Department

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: \_\_\_\_\_ Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): \_\_\_\_\_ Depth to Water (ft): 28.32 Well Diameter: \_\_\_\_\_

Sampling Personnel: \_\_\_\_\_ Screen Interval (ft bgs): 30 - 45

Type of Pump: \_\_\_\_\_ Tubing Material: \_\_\_\_\_ Pump/Tubing set at: 38 ft.

Weather Conditions: \_\_\_\_\_ NOTES: Begin pumping 10:25

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
1030	28.68			1.21	23.5		6.53		1.03
1035	28.78			0.55	22.0		6.72		1.40
1040	28.84			0.47	21.8	886	6.76	-54.4	1.29
1045	28.90			0.39	22.1	885	6.73	-58.0	0.88
1050	28.92			0.37	22.0	900	6.69	-61.0	0.51
1055	28.96			0.31	22.0	903	6.64	-61.5	0.21
1100	28.99			0.27	22.0	902	6.68	-62.8	0.03
1105	29.02			0.28	22.0	906	6.68	-64.3	0.11

Other Sample Parameters: \_\_\_\_\_

Sampled at: 1110 Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS

**Stabilization Criteria**  
**Primary:** pH +/- 0.1 unit  
 S. Cond. +/- 5%  
 Turb. +/- 10% (<10 NTUs for metals)  
 Water Level: slight or stable drawdown during purging  
**Secondary:** DO +/- 0.2 mg/L  
 ORP +/- 10mV

**LOW-FLOW GROUNDWATER SAMPLING RECORD**

Job No: TCH-009

Well ID: MW-11D

Well Location: \_\_\_\_\_

Facility Name: Town of Chapel Hill Police Department

Date: \_\_\_\_\_

Top of Casing Elevation (ft msl): \_\_\_\_\_ Casing Material: \_\_\_\_\_ Volume of Water Per Well Volume: \_\_\_\_\_

Total Well Depth (ft): 56 Depth to Water (ft): 33.96 Well Diameter: 2

Sampling Personnel: \_\_\_\_\_ Screen Interval (ft bgs): 46 - 56

Type of Pump: \_\_\_\_\_ Tubing Material: Bonded Poly Pump/Tubing set at: 51 ft.

Weather Conditions: \_\_\_\_\_ NOTES: Basin pumping 1055

**GROUNDWATER SAMPLING PARAMETERS**

Time	Water Level	Volume Pumped	Pumping Rate	DO (mg/l)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
1105	34.69		150 ml/min						
1110	34.86		150 ml/min						
1115	34.85		120 ml/min	5.95	20.4	575	10.00	-6.6	32.57
1120	34.84		120	5.97	20.4	608	9.38	4.4	20.91
1130	34.83		120	5.84	20.4	676	8.12	0.2	15.2
1135	34.82		120	5.94	20.7	691	8.07	-5.6	10.77
1140	34.81		120	5.88	20.8	678	7.90	-10.9	8.75
1145	34.81		120	6.00	21.1	709	7.77	-7.5	8.59
1150	34.81		120	5.93	21.0	710	7.77	-11.3	5.10
1155	34.81		120	5.84	21.1	709	7.76	-11.4	3.61

Other Sample Parameters: \_\_\_\_\_

Sampled at: 1200 Parameters taken with: YSI Pro Plus, Micro TPI

Sample Delivered to: \_\_\_\_\_ by \_\_\_\_\_ at \_\_\_\_\_

Field Filtration:  Yes  No If yes, which sample parameters were field filtered: \_\_\_\_\_

Sample Parameter Containers (Types, Number of Containers, Preservatives): VOCs by 8260, 1,4-Dioxane by 8260 SIM, SVOCs by 8270,

Select List 6010 / 6020 / 7470 / 7199 / 9056 / 2540 / TDS



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

Page: 1 Of 1

### Section A Required Client Information:

Company:	Hart & Hickman, Raleigh
Address:	3921 Sunset Ridge Rd
Suite:	301, Raleigh, NC 27607
Email:	jwilke@harthickman.com
Phone:	NONE
Fax:	
Requested Due Date:	

### Section B Required Project Information:

Report To:	Jared Wilke
Copy To:	<i>Shorgan@harthickman.com</i>
Purchase Order #:	
Project Name:	TCH-009 Water
Project #:	

### Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	kevin.godwin@pacelabs.com
Pace Profile #:	15457-7

Regulatory Agency:	
State / Location:	NC

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 f. .)	MATRIX CODE (see valid codes to left)	CODE	COLLECTED				PRESERVATIVES	ANALYSES TEST	Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)									
				START DATE	START TIME	END DATE	END TIME				Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	9260 SIM Trip Blank	9260 Trip Blank		9260	9260 SIM 1,4-Dioxane	9270	6020 Metals	6010/1470	9056	TDS	7-199 Hexavalent Chromium	
1	MW-3A	WT	G	8/30/22	1615					134	26	1							X	X	X	X	X	X	X	X	X			
2	MW-4A			8/31/22	950														X	X	X	X	X	X	X	X	X			
3	MW-5			8/30/22	1325														X	X	X	X	X	X	X	X	X			
4	MW-6				1510														X	X	X	X	X	X	X	X	X			
5	MW-9			8/31/22	1110														X	X	X	X	X	X	X	X	X			
6	MW-11D				1200														X	X	X	X	X	X	X	X	X			
7	Trip Blank -1																													
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>Jared Wilke</i>	8/31/22	1345	<i>Sean Shorgan</i>	8-31-22	1345	

6020 Metals: As, Be, Cd, Cr, Co, Cu, Li, Ni, Se  
6010 Metals: Ba, Mn, Sr  
9056 Anions: Chloride, Fluoride, Nitrate, Sulfate  
*\*See select analyte list per email from Jared Wilke*

SAMPLER NAME AND SIGNATURE  
PRINT Name of SAMPLER: *Sean Shorgan*  
SIGNATURE of SAMPLER: *Sean Shorgan*  
DATE Signed: 8/31/22

TEMP IN C  
Received on Ice (Y/N)  
Custody Sealed (Y/N)  
Cooler (Y/N)  
Samples Intact (Y/N)



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>.

**Section A**

**Required Client Information:**

Company: Hart & Hickman\_Raleigh  
 Address: 3921 Sunset Ridge Rd  
 Suite 301, Raleigh, NC 27607  
 Email: jwilke@harthickman.com  
 Phone: NONE Fax  
 Requested Due Date:

**Section B**

**Required Project Information:**

Report To: Jared Wilke  
 Copy To:  
 Purchase Order #:  
 Project Name: TCH-009 Water  
 Project #:

**Section C**

**Invoice Information:**

Attention:  
 Company Name:  
 Address:  
 Pace Quote:  
 Pace Project Manager: kevin.godwin@pacelabs.com,  
 Pace Profile #: 15457-7

Regulatory Agency  
 State / Location  
 NC

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	MATRIX CODE (see valid codes to left)	CODE Drinking Water DW Water WT Waste Water WYW Product P Soil/Solid SL Oil OL Wipe WP Air AR Other OT Tissue TS	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)										
				START				END		Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyzes Test Y/N	8260 SIM Trip Blank	8260 Trip Blank	8280	8280 SIM 1,4-Dioxane	8270	6020 Metals	6010/7470	9056	TDS		7199 Hexavalent Chromium									
				DATE	TIME			DATE	TIME																													
1	MW-1A			8/31/22	1630		4											X	X	X	X	X	X	X														
2	MW-7				2005													X	X	X	X	X	X	X														
3	MW-8				1800													X	X	X	X	X	X	X														
4	GW-DUP				-													X	X	X	X	X	X	X														
5	Trip Blank-2						2				2							X	X																			
6																																						
7																																						
8																																						
9																																						
10																																						
11																																						
12																																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
6020 Metals: As,Be,Cd,Cr,Co,Cu,LI,NI,Se	<i>Sean Horgan</i>	9/1/22	900	<i>Sean Horgan</i>	9/1/22	901	
6010 Metals: Ba,Mn,Sr							
9056 Anions: Chloride, Fluoride, Nitrate, Sulfate							
* See select list per email from Jared Wilke							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	<i>Sean Horgan</i>					
SIGNATURE of SAMPLER:	<i>Sean Horgan</i>					
DATE Signed: 8/31/22						

**Appendix F**

**Soil Gas Sampling Field Data and GEM Documentation**



# Sub-Slab / Soil Gas Vapor QA/QC Field Form

Project No.: \_\_\_\_\_

ID Numbers Sample / Canister / Regulator	Canister / Regulator Shut-in Test Passed	Vapor Monitoring Point Construction					Helium Leak Test						
		Type		Ground Surface		Depth of Screen	Date & Time	Ambient Temp.	Purge Method	Volume Purged	Helium Conc. Shroud	Helium Conc. Purge	Leak Test Passed
		Yes / No	SS, SG	perm., temp.	concrete, wood, asphalt, grass, soil, gravel etc.	thickness inches (if appl.)	ft bgs	mm/dd/yy 24-hour clock	°F	syringe, peristaltic, etc.	Liters (see notes for calc)	%	% or ppm (indicate units below)
S: C: R:													
S: C: R:													
S: C: R:													
S: C: R:													

S= sample; C/R = canister/regulator; SS = sub-slab; SG = soil gas; perm = permanent; temp = temporary

Volume Purged = x3 purge volume = 3\*L\*a  
 L = length of tubing/pipe (ft)  
 a = 0.163 for 2" diameter (L/ft)  
 = 0.010 for 0.25" diameter (L/ft)

Sampler(s): \_\_\_\_\_

Weather: \_\_\_\_\_

Notes: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

General Field Sketch of Sample Locations

**Note: Leak Test Requirements**  
 Per NC DEQ DWM Vapor Intrusion  
 Guidance, leak test passes if helium  
 concentration in purge air is less than  
 10% of helium concentration in shroud.



# Sub-Slab / Soil Gas Vapor QA/QC Field Form

Project No.: \_\_\_\_\_

ID Numbers Sample / Canister / Regulator	Canister / Regulator Shut-in Test Passed	Vapor Monitoring Point Construction					Helium Leak Test						
		Type		Ground Surface		Depth of Screen	Date & Time	Ambient Temp.	Purge Method	Volume Purged	Helium Conc. Shroud	Helium Conc. Purge	Leak Test Passed
		Yes / No	SS, SG	perm., temp.	concrete, wood, asphalt, grass, soil, gravel etc.	thickness inches (if appl.)	ft bgs	mm/dd/yy 24-hour clock	°F	syringe, peristaltic, etc.	Liters (see notes for calc)	%	% or ppm (indicate units below)
S: C: R:													
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S= sample; C/R = canister/regulator; SS = sub-slab; SG = soil gas; perm = permanent; temp = temporary

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 L = length of tubing/pipe (ft)  
 a = 0.163 for 2" diameter (L/ft)  
 = 0.010 for 0.25" diameter (L/ft)

Sampler(s): \_\_\_\_\_

Weather: \_\_\_\_\_

Notes: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

General Field Sketch of Sample Locations

**Note: Leak Test Requirements**  
 Per NC DEQ DWM Vapor Intrusion  
 Guidance, leak test passes if helium  
 concentration in purge air is less than  
 10% of helium concentration in shroud.



# Sub-Slab / Soil Gas Vapor QA/QC Field Form

Project No.: \_\_\_\_\_

ID Numbers Sample / Canister / Regulator	Canister / Regulator Shut-in Test Passed	Vapor Monitoring Point Construction					Helium Leak Test						
		Type		Ground Surface		Depth of Screen	Date & Time	Ambient Temp.	Purge Method	Volume Purged	Helium Conc. Shroud	Helium Conc. Purge	Leak Test Passed
		Yes / No	SS, SG	perm., temp.	concrete, wood, asphalt, grass, soil, gravel etc.	thickness inches (if appl.)	ft bgs	mm/dd/yy 24-hour clock	°F	syringe, peristaltic, etc.	Liters (see notes for calc)	%	% or ppm (indicate units below)
S: C: R:													
S: C: R:													
S: C: R:													
S: C: R:													

S= sample; C/R = canister/regulator; SS = sub-slab; SG = soil gas; perm = permanent; temp = temporary

Volume Purged = x3 purge volume = 3\*L\*a  
 L = length of tubing/pipe (ft)  
 a = 0.163 for 2" diameter (L/ft)  
 = 0.010 for 0.25" diameter (L/ft)

Sampler(s): \_\_\_\_\_

Weather: \_\_\_\_\_

Notes: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

General Field Sketch of Sample Locations

**Note: Leak Test Requirements**  
 Per NC DEQ DWM Vapor Intrusion  
 Guidance, leak test passes if helium  
 concentration in purge air is less than  
 10% of helium concentration in shroud.





Baro. Press.	Sys. Press.	Gas Pod Type	Gas Pod Value	CO	H2S	SO2	NO2	CL2	H2	HCN	Inst-Tech	Latitude	Longitude	Altitude	UTC	SatsUsed	Error	Verror	HDOP	Status	FLD-TECH	DL-TECH	SERIAL NUMBER
inches Hg	inches H2O													ft			m	m					
29.8	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.8	N/A	N/A	N/A	0	0	N/A	N/A	N/A	14	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.74	N/A	N/A	N/A	0	0	N/A	N/A	N/A	36	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.74	N/A	N/A	N/A	11	0	N/A	N/A	N/A	49	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.75	N/A	N/A	N/A	0	0	N/A	N/A	N/A	77	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.75	N/A	N/A	N/A	0	0	N/A	N/A	N/A	96	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.72	N/A	N/A	N/A	0	0	N/A	N/A	N/A	106	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.72	N/A	N/A	N/A	0	0	N/A	N/A	N/A	109	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.74	N/A	N/A	N/A	0	0	N/A	N/A	N/A	93	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.74	N/A	N/A	N/A	0	0	N/A	N/A	N/A	91	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.77	N/A	N/A	N/A	0	0	N/A	N/A	N/A	0	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.77	N/A	N/A	N/A	0	0	N/A	N/A	N/A	0	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.8	N/A	N/A	N/A	0	0	N/A	N/A	N/A	7	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.8	N/A	N/A	N/A	0	0	N/A	N/A	N/A	8	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.81	N/A	N/A	N/A	0	0	N/A	N/A	N/A	9	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.81	N/A	N/A	N/A	0	0	N/A	N/A	N/A	6	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.8	N/A	N/A	N/A	1	0	N/A	N/A	N/A	0	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.8	N/A	N/A	N/A	0	0	N/A	N/A	N/A	0	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.81	N/A	N/A	N/A	0	0	N/A	N/A	N/A	4	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.81	N/A	N/A	N/A	2	0	N/A	N/A	N/A	17	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.81	N/A	N/A	N/A	0	0	N/A	N/A	N/A	20	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.81	N/A	N/A	N/A	0	0	N/A	N/A	N/A	33	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.79	N/A	N/A	N/A	0	0	N/A	N/A	N/A	36	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.79	N/A	N/A	N/A	1	0	N/A	N/A	N/A	31	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.84	N/A	N/A	N/A	1	0	N/A	N/A	N/A	35	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.84	N/A	N/A	N/A	1	0	N/A	N/A	N/A	40	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.83	N/A	N/A	N/A	0	0	N/A	N/A	N/A	37	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.83	N/A	N/A	N/A	1	0	N/A	N/A	N/A	33	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.61	N/A	N/A	N/A	1	0	N/A	N/A	N/A	2	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.61	N/A	N/A	N/A	1	0	N/A	N/A	N/A	6	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.62	N/A	N/A	N/A	0	0	N/A	N/A	N/A	13	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.62	N/A	N/A	N/A	0	0	N/A	N/A	N/A	12	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.62	N/A	N/A	N/A	0	0	N/A	N/A	N/A	13	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510
29.62	N/A	N/A	N/A	1	0	N/A	N/A	N/A	11	N/A	N/A_	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Sean Horgan	Sean Horgan	G507510

AMBIENT-TEMP	PRECIPITATION	WIND-SPEED	WIND-DIRECTION	Anemometer Vel.	PeakCH4	PeakCO2	Anemometer Flow	MinO2	Temp. GA Mode	Rel. Press.	Site Chosen	Comments	Answers	Site Answers	REL.PRESSURE2
				m/s	%	%	SCFM	%	DegF	inches H2O					inches H2O
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	-0.02			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	0.01			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	-0.01			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	0			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	-0.01			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	0			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	0			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	-0.01			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	-0.01			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	0			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	0.06			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	-0.01			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	0.01			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	-0.01			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	-0.06			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	0.01			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	N/A			"	"	N/A
0	0	0		N/A	N/A	N/A	N/A	N/A	N/A	0			"	"	N/A