# CITY OF BRISTOL

# 2024 ANNUAL MONITORING REPORT

CITY OF BRISTOL SOLID WASTE MANAGEMENT UNIT
BRISTOL LANDFILL, BRISTOL, CONNECTICUT
EPA ID NO. CTD000790725
PERMIT NO. DEEP/REM/SP/2023/10588

FEBRUARY 2025

PROJECT NO.: US0043126.6540

## CERTIFICATION OF COMPLETION OF WATER-QUALITY MONITORING

In accordance with Section III B. of Stewardship Permit No. DEEP/REM/SP/2023/10588, Mr. Raymond Rogozinski representing the City of Bristol (the Permittee) and Mr. Michael Manolakas, a registered professional geologist and licensed environmental professional representing WSP USA, certify by signature below that the annual potable groundwater monitoring for the Bristol Landfill, as presented in this report, was performed in accordance with the specifications in the approved updated Water Quality Monitoring Plan, dated March 21, 2024.

Raymond Rogozinski, P.E.
Director of Public Works
City of Bristol

Michael Manolakas, CPG, LEP
Senior Vice President
WSP USA

# SIGNATURES

PREPARED BY:

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REVIEWED BY:

Michael Manolakas, CPG, LEP
Senior Vice President

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## TABLES



## FIGURES



## APPENDICES

# EXECUTIVE SUMMARY

On May 25, 2021, the City of Bristol (City) submitted a renewal application for the Stewardship Permit for Bristol Landfill and was approved by Connecticut Department of Energy and Environmental Protection (CTDEEP) on May 26, 2023. This permit is valid for 10 years. As part of the conditions of the Stewardship Permit, WSP USA (WSP), on behalf of the City submitted an updated Water Quality Monitoring Plan (WQMP) (March 2024), a PFAS Baseline Work Plan (March 2024), an updated Public Participation Plan (April 2024), and an updated Post-Closure Inspection, Maintenance and Environmental Monitoring Plan (December 2024). The WQMP consists of two components; annual sampling of select potable supply wells and groundwater/surface-water sampling of the City of Bristol Solid Waste Management Unit (SWMU) on a 15-month frequency. Additionally, per the approved WQMP, several eliminated analytes must be monitored every five years in wells designated for RCRA monitoring.

In 2024, WSP completed annual sampling of select potable supply wells because the SWMU groundwater and surface-water samples were collected in November 2023. The groundwater/surface water samples associated with the SWMU are scheduled to be sampled in February 2025. The expanded five-year sampling list for RCRA monitoring will be required in 2028.

The SWMU is closed and has not accepted wastes since February 28, 1998. The SWMU includes a Metal Hydroxide Sludge Landfill (MHSL), Mixed Solid Waste (MSW) landfill, a bulky waste landfill and an ash landfill. As required by the Stewardship Permit, the monitoring and reporting are conducted on behalf of the City to comply with Federal Resource Conservation and Recovery Act (RCRA) and CTDEEP regulations.

The overall monitoring program is intended to assess and document water-quality conditions associated with each portion of the SWMU. Per CTDEEP's request and based upon historical detections of 1,4-dioxane (1,4-D), the program was amended in 2015 to include 1,4-D analysis for groundwater samples from select wells and the downstream surface-water sample. For the 2024 monitoring year, the annual private potable supply monitoring was conducted in accordance with the March 2024 updated WQMP.

In addition to the potable supply monitoring, WSP conducted monthly and quarterly inspections of the landfill in accordance with the conditions of the Stewardship Permit. The physical condition of the MHSL was inspected monthly and the physical condition of the MSW and Ash Residue Disposal Area was conducted quarterly. WSP provided monthly and quarterly inspection letters to the City and are included in this report.

# 1 INTRODUCTION

This 2024 Annual Monitoring Report has been completed by WSP on behalf of the City of Bristol (City) and summarizes the 2024 potable supply and landfill inspections pertaining to the City's closed Solid Waste Management Unit (SWMU, the Bristol Landfill) located in Bristol, Connecticut (Figure 1).

The SWMU contains a metal hydroxide sludge landfill (MHSL), a mixed soil waste (MSW) landfill, a bulky waste landfill and an ash residue disposal area (Figure 2). On November 16, 2023, WSP was retained by the City to complete the requirements of the Stewardship Permit for water-quality monitoring and inspections related to the post-closure care and maintenance of the Bristol Landfill. WSP conducted monitoring on behalf of the City throughout 2024.

The 2024 monitoring program is conducted on behalf of the City in accordance with Resource Conservation and Recovery Act (RCRA) permit (CTD000790725), dated July 17, 1995, and revised in 2002, combined with the requirements of the CTDEEP Stewardship Permit (DEEP/REM/SP/2023/10588), effective May 26, 2023, which includes an update of the August 2022 Revised Water-Quality Monitoring Plan (WQMP) that was approved by CTDEEP (March 25, 2024).

Based on the WQMP, select private potable supplies are sampled annually and groundwater/surface water sampling is conducted on a 15-month frequency. Because the SWMU groundwater and surface-water samples were collected in November 2023, only annual sampling of the select potable supplies was performed in 2024.

The SWMU is closed and has not accepted wastes since February 28, 1998. The SWMU includes a MHSL, MSW landfill, a bulky waste landfill and an ash landfill. As required by the Stewardship Permit, the monitoring and reporting are conducted on behalf of the City to comply with Federal Resource Conservation and Recovery Act (RCRA) and CTDEEP regulations.

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# 2 SITE INFORMATION

## 2.1 SITE DESCRIPTION

The Bristol landfill is located off Lake Street in the southwestern section of Bristol, Connecticut (Figure 1). The Landfill is surrounded by residential property to the east, industrial (Covanta Waste to Energy facility) to the north, and undeveloped and developed industrial property to the east. To the south, the property is adjacent to the City boundary with the Town of Southington. The Town of Southington's closed DePaolo Drive landfill in Southington, Connecticut is located approximately 1,200 feet east-southeast of the Bristol landfill within the same Eight-Mile River/Quinnipiac River watershed. The MSW landfill no longer accepts any waste, with a cap completed as part of the final closure in November 1999. The closed MHSL is located in a south-central portion of the MSW Landfill (Figure 2).

## 2.2 FACILITIES OPERATIONS HISTORY

The landfill had been in operation for over 50 years. The Site was originally privately owned and used for pig farming and open burning of refuse. During the 1940s, the City purchased the property and maintained it as an open burning dump. In 1966, the open burning dump developed into a sanitary/MSW landfill. The 55-acre Site was permitted by the CTDEEP, and the eastern portion of the Site was used for ash disposal from mid-1988 to February 1998. Until 1983, numerous local industries disposed of industrial wastes consisting of mostly metal hydroxide sludge.

Prior to 1979, industrial waste was placed throughout the landfill. After the enactments of RCRA, the City constructed a specific cell of approximately 1.2 acres of land for disposal of hazardous metal hydroxide sludge waste. The cell was in operation from 1979 to 1983 and received approximately 10,000 cubic yards of material. In 1983, the CTDEEP ordered the closure of the MHSL, and the cell underwent a RCRA closure in 1986.

In 1998, the City stopped accepting all wastes to the MSW landfill. In November 1999, a cap was completed over the ash and MSW landfill as part of the landfill closure activities.

## 2.3 HYDROLOGY

The Site is located within the northern portion of the Eightmile River Drainage Basin (CTDEEP No. 5201) and situated in the topographic valley between Compounce Mountain to the west and Redstone Hill to the east (Figure 1). The headwaters of the Eightmile River are located to the north of the Site.

The eastern edge of the landfill property boundary is approximately 160 feet west of the Eightmile River. Cussgutter Brook is located along the western portion of the landfill property and flows off the property to the south. Cussgutter Brook is tributary to Mix Brook approximately 1,500 feet south of the landfill. Mix Brook is tributary to Eightmile River approximately 3,600 feet south of the landfill. Eightmile River is tributary to the Quinnipiac River approximately 4.5 miles south of the landfill.

The groundwater beneath the Site is classified "GB" by the CTDEEP and is presumed not suitable for human consumption without treatment. The surrounding properties are primarily served by the public water utility. Private water-supply wells are known to serve cottages located on Grannis Pond, approximately 6,000 feet south of the landfill.

## 2.4 GEOLOGY

The surficial materials beneath the Site are mapped primarily as glacial-outwash deposits consisting of well-sorted, stratified, medium-to-coarse grained sands and fine-to-medium gravel (Stone, Schafer, Landan and Thompson, 2005). The eastern portion of the landfill is mapped as alluvium over sand and gravel.

Based upon previous investigations, the maximum thickness of the stratified drift beneath the landfill is 75 feet. Deeper borings encountered glacial till beneath the stratified drift and above the underlying bedrock. Glacial till consists of mostly heterogeneous deposits of tightly packed sand, gravel, silt and clay, with little stratification. Borings document the glacial till ranges in thickness from 1.5 to 17 feet. A glacial till ridge is present south of the MHSL, as determined from borings completed in the area (Groundwater, Inc. 1988).

Bedrock beneath the landfill is mapped as New Haven Arkose, defined as a red, sedimentary rock of Triassic Age (Rodgers, 1985). The bedrock composition can vary from fine-grained siltstone to coarse-grained sandstone.

## 2.5 HYDROGEOLOGY

The regional and local hydrogeology has been previously described in detail in two reports; “Assessment Monitoring Second Determination” (Groundwater, Inc., 1988) and “Supplemental Leachate Impact Assessment Report” (Fuss & O'Neill, Inc., 2010). The following is a summary of the report findings.

The stratified drift aquifer is a relatively thick, homogenous deposit that is continuous cross and downgradient of the landfill. No significant stratification layers of relatively impermeable materials (silt and/or clay) were present. The thickness of the stratified drift beneath the site ranges from approximately 18 feet (GWI-4) to 50 feet (GWI-1D). The stratified drift beneath the MHSL ranges from approximately 28 ft to 44 feet thick, with approximately 30 feet of unsaturated material.

The groundwater flow direction in the stratified drift and glacial till deposits is primarily to the southeast, governed by recharge and discharge areas, permeability of the stratified drift, water-table gradient, effects of the landfill and configuration of the glacial till and bedrock surface. The underlying glacial till acts as an aquiclude reducing vertical flow through the aquifer.

In 2010, Fuss & O'Neill determined the lateral and vertical extent of leachate-impacted groundwater from the landfill. The study concluded that the landfill leachate in the shallow aquifer discharges to the Eightmile River, north, east and south of the eastern end of the landfill; however, impacts appeared to be minor. The Eightmile River appears to truncate the eastern limit of the leachate groundwater plume. Fuss & O'Neill also concluded that the leachate plume includes impacts from both the Bristol landfill and Depaolo Drive landfill located in Southington, Connecticut. The leachate plume that originates from the Site appears to migrate to the base of the underlying stratified drift deposits to a depth of 50 to 75 ft bg (feet below grade). The downgradient extent of the combined leachate plume extends southward beyond Welch Road, located approximately 4,800 feet south of the landfill.

# 3 MONITORING PROGRAM

The annual private potable supply monitoring program was conducted in November and December 2024. The private wells that were sampled are listed on Table 1 and the locations are shown on Figure 3. Samples collected were analyzed for Volatile Organic Compounds by EPA Method 524.2; and 1,4-D by modified EPA Method 522.

Eight property owners listed in the WQMP were contacted in October 2024 to obtain permission to gain access to their private wells; four wells located on East Grannis Pond Road, two wells located on West Grannis Pond Road and two wells located on Churchill Street. Permission was granted by all of the owners on East and West Grannis Pond Road and with the exception of one private well, all were sampled in November 2024. The private potable supply located at 11 West Grannis Pond Road was not sampled per the owner's request, because the cottage had been winterized for the season. This private well will be included in the 2025 annual sample event.

Between October and November 2024, Churchill Street property owners were contacted a second time because of the lack of response from the initial solicitation. One property owner (477 Churchill Street) declined inclusion in the monitoring program. As a result, additional property owners located on Churchill Street were solicited. Permission was granted by two property owners, however, one property owner (517 Churchill Street) requested that WSP sample their well beginning in 2025.

On November 13 and November 19, 2024, WSP collected groundwater samples from five potable supply wells located on East and West Grannis Pond Road. On December 18, 2024, WSP collected groundwater from one potable supply well located on Churchill Street. The annual private potable supply monitoring was conducted in accordance with the March 2024 Revised WQMP. All samples were submitted to Phoenix Environmental Laboratories Inc. (Phoenix) of Manchester, Connecticut for analysis. This laboratory is approved by the Connecticut Department of Public Health.

# 4 WATER QUALITY

The laboratory analytical data for each private potable supply (including the historical data) is presented in Table 2. Copies of the laboratory analytical reports with copies of the chain-of-custodies are provided in Appendix I.

The analytical data were compared to the CTDEEP Groundwater Protection Criteria (GWPC), CTDEEP Surface Water Protection Criteria (SWPC) and CTDPH Drinking Water Standards.

## 4.1 SUMMARY OF WATER QUALITY

Concentrations of 1,4-D have historically been detected in four wells located on Grannis Pond Road; three cottages with concentrations detected in the potable supply above and one cottage with concentrations detected below CTDEEP RSR GWPC (Table 2). The 2024 sample results document low concentrations of 1,4-D detected in three of the private wells (2 and 16 East Grannis Pond Road and 3 West Grannis Pond Road) compared to the historic results. In addition to the low concentration of 1,4-D (0.58 µg/l (micrograms per liter)) detected in the 16 East Grannis water supply, a tentatively-identified compound (carbon disulfide) was detected in the sample, at a concentration of 6.8 µg/l, well below the CTDEEP RSR GWPC of 40 µg/l. Because this well has had a history of elevated 1,4-D, the City will provide potable water to this home until additional seasonal testing is completed.

The 2024 sample result documents 1,4-D is still present at a concentration above CTDEEP RSR GWPC in the sample collected from 12 East Grannis Pond Road (6.1 µg/l), similar to historic concentrations (table 2). This seasonal cottage will be supplied potable water by the City for consumptive use beginning in the Spring.

There was no detection of 1,4-D in the sample collected from 464 Churchill Street and there were no other detections of VOCs in any of the 2024 samples. There were no exceedances of CTDEEP RSR SWPC.

## 4.2 DATA QUALITY

Quality assurance/quality control samples collected/submitted during the 2024 monitoring period included a trip blank during each sample event. The trip blank was analyzed for VOCs. The analytical results for these blanks are included in the laboratory reports in Appendix I.

No VOCs were detected in any trip blank.

# 5 EVALUATION OF THE MONITORING PROGRAM

The potable monitoring program completed in 2024 was adequate to assess offsite groundwater quality. The 2024 activities established a network of private potable supplies that will be sampled on an annual basis. Because of limited historical data, graphical illustration of the past three years was not completed for this report. These will be provided in future reports as the water quality database expands. Based on the 2024 results, the City is committed to provide potable water to cottages with drinking water exceedances, and in the case of 16 East Grannis Pond Road, until further testing is completed. Because many of the cottages around Grannis Pond are winterized each fall, sample collection during the active season (late May – mid-October) is recommended.

# 6 POST-CLOSURE CARE INSPECTIONS

As part of the Stewardship Permit requirements outlined in Section II.A.4 (a) through (c), WSP conducted a and monthly inspections of the MHSL cell and quarterly landfill inspections of the capped landfill (MSW and ash residue) in 2024. As specified in the permit, the landfill inspections include:

i) odor and dust control;
ii) condition of access roads;
iii) erosion, settling and subsidence;
iv) integrity of final cover soils and vegetation;
v) drainage control;
vi) leachate seeps; and
vii) groundwater monitoring system.

## 6.1 SUMMARY OF MHSL MONTHLY INSPECTIONS

The physical condition of the MHSL was inspected monthly and included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and other signs of any deterioration or stability of the cover material.

Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL were generally acceptable at the time of the inspections with the exception of erosion observed at the top of the landfill, as well as previously areas identified in late 2023 with settling/subsidence. The City awarded a contract to Yield Industries to repair erosion on the landfill. The construction was scheduled to start in April 2024 and the repairs were completed in May 2024.

Stormwater controls were found in good condition. All monitoring wells located around the perimeter of the MHSL were found in good condition. Posted signs were clear of vegetation and legible. The results of the 2024 inspections were summarized in monthly reports submitted to the City and are provided in Appendix II.

## 6.2 SUMMARY OF CAPPED LANDFILL INSPECTIONS

Quarterly inspections of the capped landfill, that includes the MSW and the ash residue disposal area, were completed by WSP during 2024. The inspections included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundances of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were also checked for signs of erosion, obstructions and loss of rip-rap. General site conditions were observed, which included inspection for odors and excessive dust associated with Site activities. Groundwater monitoring wells were inspected to verify that they remain secure and in

working condition and posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the capped landfill was not acceptable at the time of the first quarter inspection with the following noted observations: soil erosion, approximately 6 inches to 2 feet deep, likely caused by uncontrolled stormwater runoff was observed at the top of the landfill access road; excessive vegetative growth was observed in stormwater channels; stormwater run-off/run-on controls at discrete locations were not in good condition; and subsidence and erosion on the northwestern side of the MSW was noted. Subsequent repairs to these deficiencies were completed in May 2024 by Yield Industries.

All access roads and access points were well maintained and easily passable, all monitoring wells located at the MSW, and ash residue disposal area were found in good condition and posted signs were clear of vegetation and legible. The results of the inspections were summarized in a quarterly report submitted to the City and are provided in Appendix III.

# 7 CONCLUSIONS

The annual potable groundwater monitoring program was established and initiated in 2024. As the potable groundwater monitoring program continues, possible trends will be evaluated. Mitigation consists of the City providing potable water to select cottages during the active season.

Monthly and quarterly inspections of the physical condition of the MHSL in 2024 indicate that the impoundment is presently in good condition and the wells are generally in good condition.

# 8 ADMINISTRATIVE TASKS

- The 2023 Annual Progress Report was submitted to CTDEEP on March 3, 2024, detailing the groundwater monitoring activities that occurred at the Bristol landfill in 2023.
- As required by the Stewardship Permit DEEP/REM/SP/2023/10588 (issued May 26, 2023), several items were prepared and submitted to CTDEEP and summarized below:
    - On March 21, 2024, WSP, on behalf of the City, submitted an updated WQMP and response to CTDEEP January 2023 comments. The WQMP was approved by CTDEEP on March 25, 2024 (Appendix IV).
    - On March 29, 2024, WSP, on behalf of the City, submitted a PFAS Baseline Work Plan to CTDEEP for review and approval. Based on comments received by CTDEEP, a revised plan was submitted on June 21, 2024, which was approved by CTDEEP on July 18, 2024 (Appendix IV). Baseline PFAS sampling was conducted in November 2024, and as requested by CTDEEP, the results will be submitted under a separate cover.
    - On April 15, 2024, WSP, on behalf of the City, submitted an updated Public Participation Plan to CTDEEP for review and comment. The plan was approved by CTDEEP on July 18, 2024 (Appendix IV).
    - On December 10, 2024, WSP, on behalf of the City, submitted an updated Post Closure Inspection, Maintenance and Environmental Monitoring Plan to CTDEEP for review and comment. CTDEEP approval is pending.
- The groundwater/surface water samples associated with the SWMU are scheduled to be sampled in February 2025. The expanded five-year sampling list for RCRA monitoring will be required in 2028.
- The potable supply monitoring program is tentatively scheduled for late spring/early summer (June-July) 2025.
- Inspections of the landfill cap will be conducted quarterly throughout 2025.
- The City is currently working with Loureiro Engineering Associates on the preparation of the Baseline Ecological Risk Assessment (BERA) for the landfill. The BERA Work Plan is scheduled to be performed in 2025 as joint effort with Town of Southington, following the completion of additional screening-level ecological risk assessment work related to the DePaolo Landfill by the Town of Southington.

cmm
February 28, 2025
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# TABLES

**TABLE 1**

**BRISTOL LANDFILL**
**LAKE AVENUE, BRISTOL, CONNECTICUT**

**Proposed Potable Supply Well Monitoring Plan**

| Sample Location IDs [1/] | | Sample Method [2/] | Laboratory Analysis | |
|---|---|---|---|---|
| | | | VOCs by 524.2 | 1,4-Dioxane by 522 |
| East/West Grannis Pond | 2 | post; flush | X | X |
| | 3 | post; flush | X | X |
| | 6 | post; flush | X | X |
| | 11 | post; flush | NS | NS |
| | 12 | post; flush | X | X |
| | 16 | post; flush | X | X |
| Churchill St. | 477 | Declined | Declined | Declined |
| | 464 | post; flush | X | X |
| | 517 | NS | NS | NS |

X Analyzed at an annual frequency.

NS Not sampled in 2024 per owner request, will be included in 2025.

1/ To protect residents' privacy individual owners not shown.

2/ Collected from either an inside tap or outside spigot at each select location after bypassing system filters and flushing the well system for at least five minutes.

Table 2

2024 Annual Monitoring Report
Bristol Landfill
Bristol, Connecticut

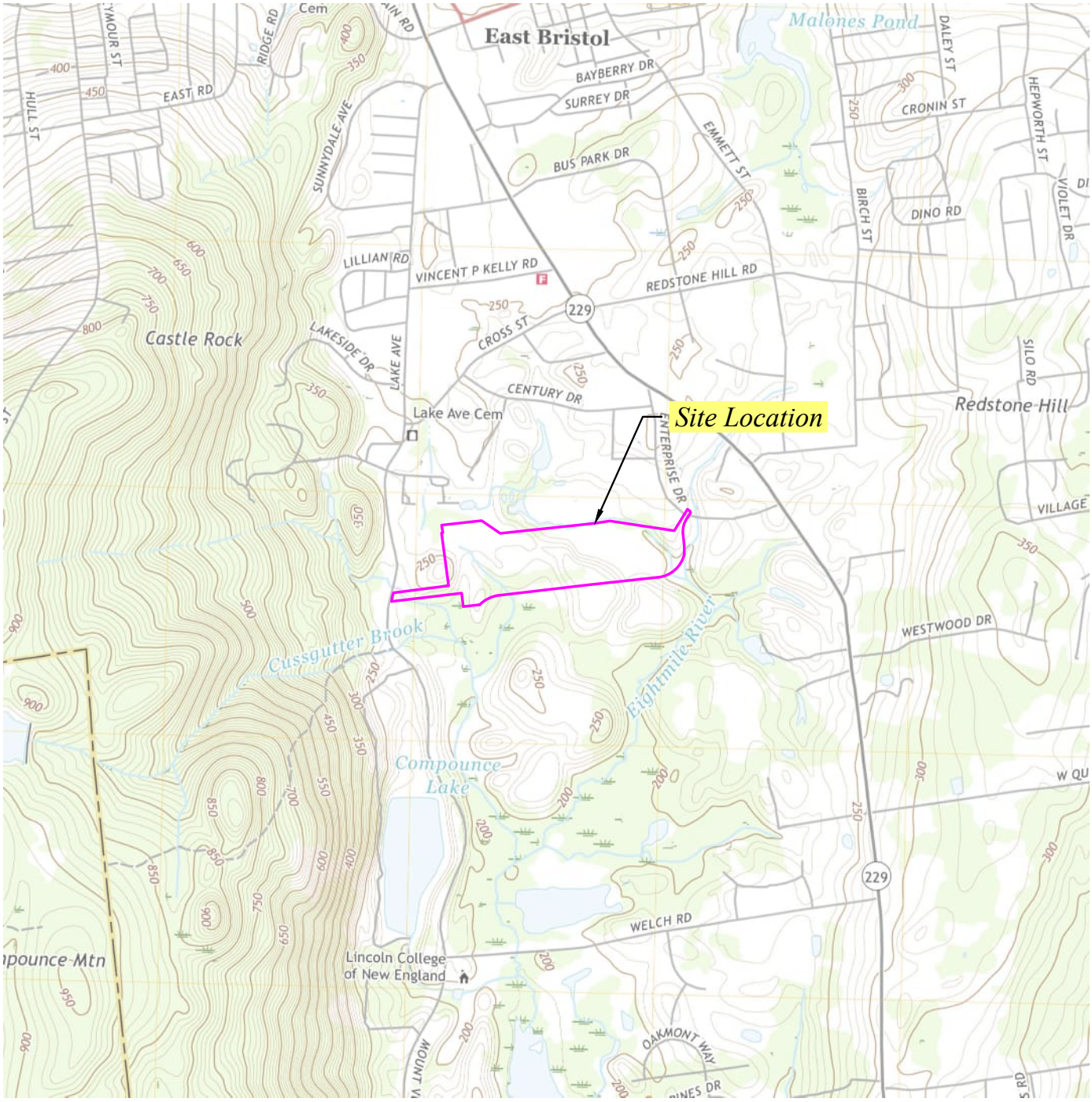
Summary of Potable Supply Results

| SITE_ID | Well Depth (feet) | DATE | SAMPLE ID | RESULT TYPE | Chloroform | Trichloroethene | 1,4 -Dioxane |
|---|---|---|---|---|---|---|---|
| Connecticut Department of Public Health Maximum Contaminant or Action Level | | | | | 80 | 5 | ***3*** |
| RSR Groundwater Protection Cnteria (GWPC) | | | | | **6** | 5 | ***** |
| CTDEEP Additional Polluting Substances and Certain Alternative Criteria | | | | | - | - | ***3*** |
| RSR Surface Water Protection Criteria (SWPC) | | | | | 14,100 | 2,340 | * |
| CTDEEP Additional Polluting Substances and Certain Alternative Criteria | | | | | - | - | *960* |
| RSR Residential Groundwater Volatilization Criteria (RVCG) | | | | | 26 | 27 | * |
| 2 EAST GRANNIS POND | 20 | 06/03/2016 | 1251160603-09 | Primary | 1.4 | <0.50 | <2.5 |
| | | 05/24/2018 | 1358180524-15 | Primary | <0.5 | <0.50 | 0.6 |
| | | 11/13/2024 | CS06055 | Primary | <0.5 | <0.50 | 0.42 |
| 3 WEST GRANNIS POND | 80 | 12/04/2003 | 211031204-06 | Primary | <0.5 | <0.50 | NS |
| | | 04/08/2016 | 1306160408-09 | Primary | <0.5 | <0.50 | **6.9** |
| | | 04/08/2016 | 1306160408-11 | Duplicate | <0.5 | <0.50 | **6.5** |
| | | 06/03/2016 | 1251160603-06 | Primary | <0.5 | <0.50 | **9.7** |
| | | 05/24/2018 | 1358180524-14 | Primary | <0.5 | <0.50 | **12** |
| | | 11/19/2024 | CS11823 | Primary | <0.5 | <0.50 | <2.0 |
| 6A EAST GRANNIS POND | 12 | 06/03/2016 | 1251160603-12 | Primary | **8.01** | <0.50 | <2.5 |
| | | 05/24/2018 | 1358180524-02 | Primary | <0.50 | <0.50 | <0.20 |
| | | 11/13/2024 | CS06056 | Primary | <0.50 | <0.50 | <0.20 |
| 6B EAST GRANNIS POND | 45 | 06/03/2016 | 1251160603-13 | Primary | <0.50 | <0.50 | <2.5 |
| | | 05/24/2018 | 1358180524-03 | Primary | <0.50 | <0.50 | <0.20 |
| 11 WEST GRANNIS POND | 45 | 04/08/2016 | 1306160408-07 | Primary | <0.50 | 4.5 | <2.5 |
| | | 05/24/2018 | 1358180524-08 | Primary | <0.50 | 0.84 | <0.20 |
| | | Well not sampled per owner request, will be sampled in 2025 | | | NS | NS | NS |
| 12 EAST GRANNIS POND | 22 | 06/03/2016 | 1251160603-16 | Primary | <0.5 | <0.5 | **10** |
| | | 05/24/2018 | 1358180524-16 | Primary | <0.5 | <0.50 | **8.9** |
| | | 11/13/2024 | CS06057 | Primary | <0.50 | <0.50 | **6.1** |
| 16 EAST GRANNIS POND | 15 | 06/03/2016 | 1251160603-04 | Primary | <0.50 | <0.50 | <2.5 |
| | | 05/24/2018 | 1358180524-21 | Primary | <0.50 | <0.50 | **8** |
| | | 11/13/2024 | CS06058 | Primary | <0.50 | <0.50 | 0.58 |
| | | 11/13/2024 | CS06060 | Duplicate | <0.50 | <0.50 | 0.53 |
| 517 CHURCHILL STREET | 205 | Well not sampled per owner request, will be sampled in 2025 | | | NS | NS | NS |
| 464 CHURCHILL STREET | Unknown | 12/18/2024 | CS31666 | Primary | <0.50 | <0.50 | <0.20 |

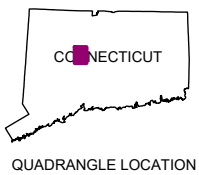
**Notes:**

| | |
|---|---|
| * | MCL has not been established for this parameter |
| ND<0.5 | Not Detected above the stated reporting limit |
| NS | Well was not sampled during this monitoring period |

# FIGURES




SOURCE: USGS TOPOGRAPHIC QUADRANGLE BRISTOL, CONNECTICUT (2018).




QUADRANGLE LOCATION

LEGEND

APPROXIMATE PROPERTY BOUNDARY

0 2000

SCALE IN FEET

WSP USA Inc.
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

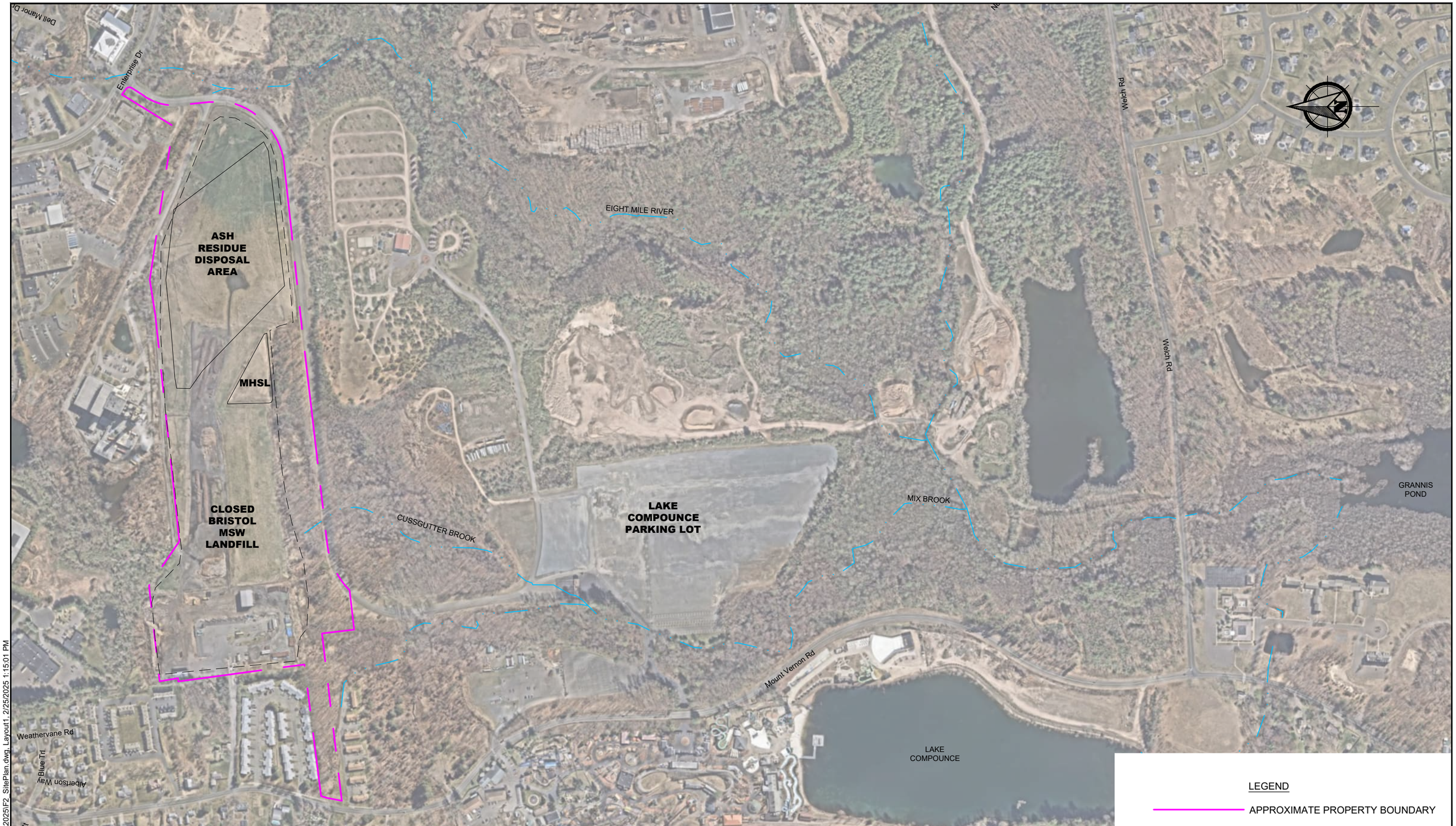
# City of Bristol Landfill
# Lake Avenue
# Bristol, Connecticut

SITE LOCATION MAP

FIGURE 1

DWG Date: 02/27/24
Checked: LD
Approved: KD
Drawn By: RAC
A

O:\DWG\Bristol Landfill\F1_SLM.dwg, Layout1, 2/27/2024 11:53:40 AM, AutoCAD PDF (High Quality Print).pc3




O:\DWG\Bristol Landfill\2025\F2_SitePlan.dwg, Layout1, 2/25/2025 1:15:01 PM

B

SOURCES:
1. ECS "WATER TABLE CONTOURS - MAY 2014", FIGURE 2, DATED MAY 2014.
2. NEARMAP IMAGERY APRIL 22, 2024.
3. DEEP GIS DATA.

0 500
SCALE IN FEET

WSP USA Inc.
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| | |
|---|---|
| Drawn By: | RAC |
| Checked: | KD |
| Approved: | KD |
| DWG Date: | 02/25/25 |

# City of Bristol Landfill
# Lake Avenue
# Bristol, Connecticut

## AERIAL SITE PLAN

FIGURE 2


O:\DWG\Bristol Landfill\2025\F1_WellLoca.dwg, Layout1, 2/21/2025 5:37:09 AM

SOURCES:
1. ECS "WATER TABLE CONTOURS - MAY 2014", FIGURE 2, DATED MAY 2014.
2. NEARMAP IMAGERY APRIL 22, 2024.
3. DEEP GIS DATA.

B

0 400
SCALE IN FEET

LEGEND

● HOMEOWNER WELL LOCATION

WSP USA Inc.
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| | |
|---|---|
| Drawn By: | RAC |
| Checked: | DO |
| Approved: | KD |
| DWG Date: | 02/20/25 |

City of Bristol Landfill
Lake Avenue
Bristol, Connecticut

POTABLE SUPPLY WELL LOCATIONS

FIGURE 3

# APPENDIX I

**Wednesday, November 20, 2024**

**Attn: Karen Destefanis**
**WSP USA**
**4 Research Dr Suite 204**
**Shelton, CT 06484**

**Project ID:** **BRISTOL LF**
**SDG ID:** **GCS06055**
**Sample ID#s:** **CS06055 - CS06060**

**This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.**

**This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.**

**A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.**

**The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.**

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**

**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**VT Lab Registration #VT11301**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

# Sample Id Cross Reference

November 20, 2024

SDG I.D.: GCS06055

Project ID: BRISTOL LF

| Client Id | Lab Id | Matrix |
|---|---|---|
| 2 E. GRANNIS | CS06055 | DRINKING WATER |
| 6 E. GRANNIS | CS06056 | DRINKING WATER |
| 12 E. GRANNIS | CS06057 | DRINKING WATER |
| 16 E. GRANNIS | CS06058 | DRINKING WATER |
| TB | CS06059 | WATER |
| 16 E. GRANNIS DUP | CS06060 | DRINKING WATER |

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

November 20, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | DRINKING WATER | Collected by: | | 11/13/24 | 11:35 |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 11/13/24 | 13:11 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCS06055
Phoenix ID: CS06055

Project ID: BRISTOL LF
Client ID: 2 E. GRANNIS

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 11/19/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 93 | | % | 1 | 11/19/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 97 | | % | 1 | 11/19/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 11/19/24 | HM | |

## 1,4-dioxane

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,4-dioxane | 0.42 | 0.20 | ug/l | 1 | 11/18/24 | AW | EPA522 |

**Ver 1**

Project ID: BRISTOL LF
Client ID: 2 E. GRANNIS

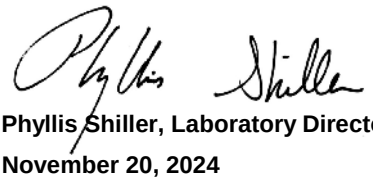
Phoenix I.D.: CS06055

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **QA/QC Surrogates** | | | | | | | |
| % 1,4-dioxane-d8 | 88 | | % | 1 | 11/18/24 | AW | 70 - 130 % |
| Extraction for 1,4-Dioxane | Completed | | | | 11/15/24 | G/G | EPA522 |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**November 20, 2024**
**Reviewed and Released by: Rashmi Makol, Project Manager**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

November 20, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | DRINKING WATER | Collected by: | | 11/13/24 | 11:15 |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 11/13/24 | 13:11 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCS06055
Phoenix ID: CS06056

Project ID: BRISTOL LF
Client ID: 6 E. GRANNIS

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 98 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 105 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 11/18/24 | HM | |

## 1,4-dioxane

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,4-dioxane | ND | 0.20 | ug/l | 1 | 11/18/24 | AW | EPA522 |

Project ID: BRISTOL LF
Client ID: 6 E. GRANNIS

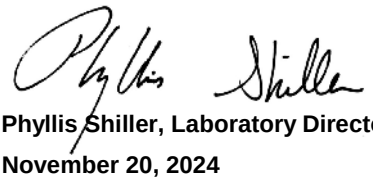
Phoenix I.D.: CS06056

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **QA/QC Surrogates** | | | | | | | |
| % 1,4-dioxane-d8 | 80 | | % | 1 | 11/18/24 | AW | 70 - 130 % |
| Extraction for 1,4-Dioxane | Completed | | | | 11/15/24 | G/G | EPA522 |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**November 20, 2024**
**Reviewed and Released by: Rashmi Makol, Project Manager**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

November 20, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | DRINKING WATER | Collected by: | | 11/13/24 | 10:45 |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 11/13/24 | 13:11 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCS06055
Phoenix ID: CS06057

Project ID: BRISTOL LF
Client ID: 12 E. GRANNIS

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 104 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 11/18/24 | HM | |

## 1,4-dioxane

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,4-dioxane | 6.1 | 0.20 | ug/l | 1 | 11/18/24 | AW | EPA522 |

**Ver 1**

Project ID: BRISTOL LF
Client ID: 12 E. GRANNIS

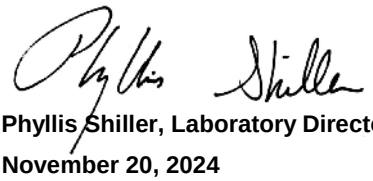
Phoenix I.D.: CS06057

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **QA/QC Surrogates** | | | | | | | |
| % 1,4-dioxane-d8 | 94 | | % | 1 | 11/18/24 | AW | 70 - 130 % |
| Extraction for 1,4-Dioxane | Completed | | | | 11/15/24 | G/G | EPA522 |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**November 20, 2024**
**Reviewed and Released by: Rashmi Makol, Project Manager**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

November 20, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | DRINKING WATER | Collected by: | | 11/13/24 | 11:00 |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 11/13/24 | 13:11 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCS06055
Phoenix ID: CS06058

Project ID: BRISTOL LF
Client ID: 16 E. GRANNIS

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 98 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 101 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 11/18/24 | HM | |

## 1,4-dioxane

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,4-dioxane | 0.58 | 0.20 | ug/l | 1 | 11/18/24 | AW | EPA522 |

Project ID: BRISTOL LF
Client ID: 16 E. GRANNIS

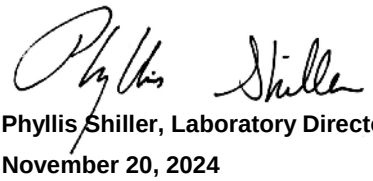
Phoenix I.D.: CS06058

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **QA/QC Surrogates** | | | | | | | |
| % 1,4-dioxane-d8 | 88 | | % | 1 | 11/18/24 | AW | 70 - 130 % |
| Extraction for 1,4-Dioxane | Completed | | | | 11/15/24 | G/G | EPA522 |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**November 20, 2024**
**Reviewed and Released by: Rashmi Makol, Project Manager**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

November 20, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | WATER | Collected by: | | 11/13/24 | |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 11/13/24 | 13:11 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCS06055
Phoenix ID: CS06059

Project ID: BRISTOL LF
Client ID: TB

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |

Project ID: BRISTOL LF
Client ID: TB

Phoenix I.D.: CS06059

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 100 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 102 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 11/18/24 | HM | |

Project ID: BRISTOL LF
Client ID: TB

Phoenix I.D.: CS06059

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

TRIP BLANK INCLUDED.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**November 20, 2024**
**Reviewed and Released by: Rashmi Makol, Project Manager**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

November 20, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | DRINKING WATER | Collected by: | | 11/13/24 | 11:05 |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 11/13/24 | 13:11 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCS06055
Phoenix ID: CS06060

Project ID: BRISTOL LF
Client ID: 16 E. GRANNIS DUP

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |

Project ID: BRISTOL LF
Client ID: 16 E. GRANNIS DUP

Phoenix I.D.: CS06060

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 11/15/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 103 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 106 | | % | 1 | 11/15/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 11/18/24 | HM | |

## 1,4-dioxane

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,4-dioxane | 0.53 | 0.20 | ug/l | 1 | 11/18/24 | AW | EPA522 |

**Ver 1**

Project ID: BRISTOL LF
Client ID: 16 E. GRANNIS DUP

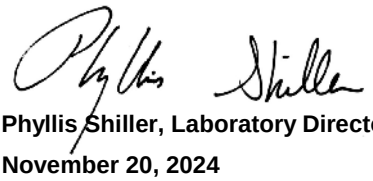
Phoenix I.D.: CS06060

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **QA/QC Surrogates** | | | | | | | |
| % 1,4-dioxane-d8 | 82 | | % | 1 | 11/18/24 | AW | 70 - 130 % |
| Extraction for 1,4-Dioxane | Completed | | | | 11/15/24 | G/G | EPA522 |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**November 20, 2024**
**Reviewed and Released by: Rashmi Makol, Project Manager**

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 2 E. GRANNIS

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS06055

Matrix:(soil/water) DRINKING WATER  Lab Sample ID: CS06055

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1118_38.D

Level: (low/med)  Date Received: 11/13/24

% Moisture: not dec. 100  Date Analyzed: 11/19/24

GC Column: RTX-VMS  ID: 0.18mm  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 6 E. GRANNIS

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS06055

Matrix:(soil/water) DRINKING WATER  Lab Sample ID: CS06056

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1115_21.D

Level: (low/med)  Date Received: 11/13/24

% Moisture: not dec. 100  Date Analyzed: 11/15/24

GC Column: RTX-VMS  ID: 0.18mm  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 12 E. GRANNIS

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS06055

Matrix:(soil/water) DRINKING WATER  Lab Sample ID: CS06057

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1115_22.D

Level: (low/med)  Date Received: 11/13/24

% Moisture: not dec. 100  Date Analyzed: 11/15/24

GC Column: RTX-VMS  ID: 0.18mm  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 16 E. GRANNIS

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS06055

Matrix:(soil/water) DRINKING WATER  Lab Sample ID: CS06058

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1115_23.D

Level: (low/med)  Date Received: 11/13/24

% Moisture: not dec. 100  Date Analyzed: 11/15/24

GC Column: RTX-VMS  ID: 0.18mm  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

Number TICs found: 1  CONCENTRATION UNITS: (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 75-15-0 | Carbon Disulfide | 2.07 | 6.8 | Q |
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.
N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified
Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: TB

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS06055

Matrix:(soil/water) WATER  Lab Sample ID: CS06059

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1115_12.D

Level: (low/med)  Date Received: 11/13/24

% Moisture: not dec. 100  Date Analyzed: 11/15/24

GC Column: RTX-VMS  ID: 0.18mm  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 16 E. GRANNIS DUP

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS06055

Matrix:(soil/water) DRINKING WATER  Lab Sample ID: CS06060

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1115_24.D

Level: (low/med)  Date Received: 11/13/24

% Moisture: not dec. 100  Date Analyzed: 11/15/24

GC Column: RTX-VMS  ID: 0.18mm  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

Number TICs found: 1  CONCENTRATION UNITS: (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 75-15-0 | Carbon Disulfide | 2.065 | 3.1 | Q |
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# QA/QC Report

November 20, 2024

## QA/QC Data

SDG I.D.: GCS06055

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 758504 (ug/l), QC Sample No: CS05369 (CS06055, CS06056, CS06057, CS06058, CS06060) | | | | | | | | | | |
| **1,4dioxane - Drinking Water** | | | | | | | | | | |
| 1,4-dioxane | ND | 0.20 | 103 | 108 | 4.7 | 86 | | | 70 - 130 | 20 |
| % 1,4-dioxane-d8 | 88 | % | 89 | 88 | 1.1 | 75 | | | 70 - 130 | 20 |
| QA/QC Batch 758765 (ug/L), QC Sample No: CS08083 (CS06056, CS06057, CS06058, CS06059, CS06060) | | | | | | | | | | |
| **Volatiles - Drinking Water** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | 96 | 104 | 8.0 | | | | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | ND | 0.50 | 101 | 110 | 8.5 | | | | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | 92 | 98 | 6.3 | | | | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | ND | 0.50 | 89 | 96 | 7.6 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethane | ND | 0.50 | 90 | 99 | 9.5 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 0.50 | 91 | 96 | 5.3 | | | | 70 - 130 | 30 |
| 1,1-Dichloropropene | ND | 0.40 | 96 | 103 | 7.0 | | | | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | 94 | 101 | 7.2 | | | | 70 - 130 | 30 |
| 1,2,3-Trichloropropane | ND | 0.50 | 95 | 103 | 8.1 | | | | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | 98 | 102 | 4.0 | | | | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | 98 | 107 | 8.8 | | | | 70 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 0.50 | 94 | 104 | 10.1 | | | | 70 - 130 | 30 |
| 1,2-Dichloroethane | ND | 0.50 | 104 | 112 | 7.4 | | | | 70 - 130 | 30 |
| 1,2-Dichloropropane | ND | 0.50 | 84 | 90 | 6.9 | | | | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | 101 | 107 | 5.8 | | | | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 0.50 | 96 | 100 | 4.1 | | | | 70 - 130 | 30 |
| 1,3-Dichloropropane | ND | 0.50 | 90 | 98 | 8.5 | | | | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 0.50 | 96 | 103 | 7.0 | | | | 70 - 130 | 30 |
| 2,2-Dichloropropane | ND | 0.50 | 95 | 99 | 4.1 | | | | 70 - 130 | 30 |
| 2-Chlorotoluene | ND | 0.50 | 93 | 102 | 9.2 | | | | 70 - 130 | 30 |
| 4-Chlorotoluene | ND | 0.50 | 96 | 107 | 10.8 | | | | 70 - 130 | 30 |
| Benzene | ND | 0.50 | 90 | 95 | 5.4 | | | | 70 - 130 | 30 |
| Bromobenzene | ND | 0.50 | 93 | 103 | 10.2 | | | | 70 - 130 | 30 |
| Bromochloromethane | ND | 0.50 | 90 | 97 | 7.5 | | | | 70 - 130 | 30 |
| Bromodichloromethane | ND | 0.50 | 97 | 107 | 9.8 | | | | 70 - 130 | 30 |
| Bromoform | ND | 0.50 | 95 | 107 | 11.9 | | | | 70 - 130 | 30 |
| Bromomethane | ND | 0.50 | 94 | 100 | 6.2 | | | | 70 - 130 | 30 |
| Carbon tetrachloride | ND | 0.50 | 105 | 108 | 2.8 | | | | 70 - 130 | 30 |
| Chlorobenzene | ND | 0.50 | 91 | 98 | 7.4 | | | | 70 - 130 | 30 |
| Chloroethane | ND | 0.50 | 85 | 94 | 10.1 | | | | 70 - 130 | 30 |
| Chloroform | ND | 0.50 | 96 | 104 | 8.0 | | | | 70 - 130 | 30 |
| Chloromethane | ND | 0.50 | 103 | 111 | 7.5 | | | | 70 - 130 | 30 |
| cis-1,2-Dichloroethene | ND | 0.50 | 90 | 96 | 6.5 | | | | 70 - 130 | 30 |
| cis-1,3-Dichloropropene | ND | 0.40 | 92 | 98 | 6.3 | | | | 70 - 130 | 30 |
| Dibromochloromethane | ND | 0.50 | 97 | 106 | 8.9 | | | | 70 - 130 | 30 |
| Dibromomethane | ND | 0.50 | 96 | 106 | 9.9 | | | | 70 - 130 | 30 |
| Dichlorodifluoromethane | ND | 0.50 | 111 | 121 | 8.6 | | | | 70 - 130 | 30 |

# QA/QC Data

SDG I.D.: GCS06055

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethyl ether | ND | 1.0 | 86 | 95 | 9.9 | | | | 70 - 130 | 30 |
| Ethyl tert-butyl ether | ND | 1.0 | 99 | 103 | 4.0 | | | | 70 - 130 | 30 |
| Ethylbenzene | ND | 0.50 | 97 | 102 | 5.0 | | | | 70 - 130 | 30 |
| Hexachlorobutadiene | ND | 0.40 | 95 | 111 | 15.5 | | | | 70 - 130 | 30 |
| Isopropylbenzene | ND | 0.50 | 96 | 102 | 6.1 | | | | 70 - 130 | 30 |
| m&p-Xylene | ND | 0.50 | 94 | 103 | 9.1 | | | | 70 - 130 | 30 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | 99 | 111 | 11.4 | | | | 70 - 130 | 30 |
| Methylene chloride | ND | 0.50 | 83 | 94 | 12.4 | | | | 70 - 130 | 30 |
| Naphthalene | ND | 0.50 | 95 | 103 | 8.1 | | | | 70 - 130 | 30 |
| n-Butylbenzene | ND | 0.50 | 96 | 106 | 9.9 | | | | 70 - 130 | 30 |
| n-Propylbenzene | ND | 0.50 | 99 | 104 | 4.9 | | | | 70 - 130 | 30 |
| o-Xylene | ND | 0.50 | 95 | 102 | 7.1 | | | | 70 - 130 | 30 |
| p-Isopropyltoluene | ND | 0.50 | 100 | 108 | 7.7 | | | | 70 - 130 | 30 |
| sec-Butylbenzene | ND | 0.50 | 98 | 107 | 8.8 | | | | 70 - 130 | 30 |
| Styrene | ND | 0.50 | 95 | 103 | 8.1 | | | | 70 - 130 | 30 |
| tert-amyl methyl ether | ND | 0.50 | 98 | 105 | 6.9 | | | | 70 - 130 | 30 |
| tert-butyl alcohol | ND | 10 | 107 | 119 | 10.6 | | | | 60 - 140 | 20 |
| tert-Butylbenzene | ND | 0.50 | 101 | 109 | 7.6 | | | | 70 - 130 | 30 |
| Tetrachloroethene | ND | 0.50 | 97 | 104 | 7.0 | | | | 70 - 130 | 30 |
| Toluene | ND | 0.50 | 90 | 97 | 7.5 | | | | 70 - 130 | 30 |
| trans-1,2-Dichloroethene | ND | 0.50 | 91 | 97 | 6.4 | | | | 70 - 130 | 30 |
| trans-1,3-Dichloropropene | ND | 0.40 | 95 | 103 | 8.1 | | | | 70 - 130 | 30 |
| Trichloroethene | ND | 0.50 | 93 | 95 | 2.1 | | | | 70 - 130 | 30 |
| Trichlorofluoromethane | ND | 0.50 | 106 | 112 | 5.5 | | | | 70 - 130 | 30 |
| Trichlorotrifluoroethane | ND | 0.50 | 97 | 104 | 7.0 | | | | 70 - 130 | 30 |
| Vinyl chloride | ND | 0.50 | 90 | 99 | 9.5 | | | | 70 - 130 | 30 |
| % 1,2-dichlorobenzene-d4 | 97 | % | 106 | 107 | 0.9 | | | | 70 - 130 | 30 |
| % Bromofluorobenzene | 100 | % | 105 | 112 | 6.5 | | | | 70 - 130 | 30 |

Comment:

This batch consists of a blank, LCS and LCSD.

QA/QC Batch 758960 (ug/L), QC Sample No: CS09619 (CS06055)

## Volatiles - Drinking Water

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | 102 | 99 | 3.0 | | | | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | ND | 0.50 | 100 | 96 | 4.1 | | | | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | 102 | 99 | 3.0 | | | | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | ND | 0.50 | 102 | 98 | 4.0 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethane | ND | 0.50 | 102 | 97 | 5.0 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 0.50 | 97 | 93 | 4.2 | | | | 70 - 130 | 30 |
| 1,1-Dichloropropene | ND | 0.40 | 100 | 94 | 6.2 | | | | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | 107 | 104 | 2.8 | | | | 70 - 130 | 30 |
| 1,2,3-Trichloropropane | ND | 0.50 | 101 | 100 | 1.0 | | | | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | 101 | 98 | 3.0 | | | | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | 103 | 99 | 4.0 | | | | 70 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 0.50 | 102 | 97 | 5.0 | | | | 70 - 130 | 30 |
| 1,2-Dichloroethane | ND | 0.50 | 101 | 96 | 5.1 | | | | 70 - 130 | 30 |
| 1,2-Dichloropropane | ND | 0.50 | 99 | 98 | 1.0 | | | | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | 104 | 99 | 4.9 | | | | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 0.50 | 103 | 100 | 3.0 | | | | 70 - 130 | 30 |
| 1,3-Dichloropropane | ND | 0.50 | 102 | 96 | 6.1 | | | | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 0.50 | 103 | 94 | 9.1 | | | | 70 - 130 | 30 |
| 2,2-Dichloropropane | ND | 0.50 | 98 | 92 | 6.3 | | | | 70 - 130 | 30 |
| 2-Chlorotoluene | ND | 0.50 | 102 | 97 | 5.0 | | | | 70 - 130 | 30 |

# QA/QC Data

SDG I.D.: GCS06055

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | 0.50 | 98 | 97 | 1.0 | | | | 70 - 130 | 30 |
| Benzene | ND | 0.50 | 101 | 97 | 4.0 | | | | 70 - 130 | 30 |
| Bromobenzene | ND | 0.50 | 102 | 99 | 3.0 | | | | 70 - 130 | 30 |
| Bromochloromethane | ND | 0.50 | 99 | 98 | 1.0 | | | | 70 - 130 | 30 |
| Bromodichloromethane | ND | 0.50 | 103 | 100 | 3.0 | | | | 70 - 130 | 30 |
| Bromoform | ND | 0.50 | 99 | 94 | 5.2 | | | | 70 - 130 | 30 |
| Bromomethane | ND | 0.50 | 101 | 96 | 5.1 | | | | 70 - 130 | 30 |
| Carbon tetrachloride | ND | 0.50 | 103 | 92 | 11.3 | | | | 70 - 130 | 30 |
| Chlorobenzene | ND | 0.50 | 102 | 96 | 6.1 | | | | 70 - 130 | 30 |
| Chloroethane | ND | 0.50 | 103 | 99 | 4.0 | | | | 70 - 130 | 30 |
| Chloroform | ND | 0.50 | 101 | 94 | 7.2 | | | | 70 - 130 | 30 |
| Chloromethane | ND | 0.50 | 109 | 106 | 2.8 | | | | 70 - 130 | 30 |
| cis-1,2-Dichloroethene | ND | 0.50 | 98 | 98 | 0.0 | | | | 70 - 130 | 30 |
| cis-1,3-Dichloropropene | ND | 0.40 | 100 | 93 | 7.3 | | | | 70 - 130 | 30 |
| Dibromochloromethane | ND | 0.50 | 102 | 100 | 2.0 | | | | 70 - 130 | 30 |
| Dibromomethane | ND | 0.50 | 103 | 100 | 3.0 | | | | 70 - 130 | 30 |
| Dichlorodifluoromethane | ND | 0.50 | 106 | 101 | 4.8 | | | | 70 - 130 | 30 |
| Ethyl ether | ND | 1.0 | 99 | 91 | 8.4 | | | | 70 - 130 | 30 |
| Ethyl tert-butyl ether | ND | 1.0 | 100 | 92 | 8.3 | | | | 70 - 130 | 30 |
| Ethylbenzene | ND | 0.50 | 104 | 96 | 8.0 | | | | 70 - 130 | 30 |
| Hexachlorobutadiene | ND | 0.40 | 98 | 95 | 3.1 | | | | 70 - 130 | 30 |
| Isopropylbenzene | ND | 0.50 | 101 | 97 | 4.0 | | | | 70 - 130 | 30 |
| m&p-Xylene | ND | 0.50 | 102 | 100 | 2.0 | | | | 70 - 130 | 30 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | 100 | 93 | 7.3 | | | | 70 - 130 | 30 |
| Methylene chloride | ND | 0.50 | 99 | 91 | 8.4 | | | | 70 - 130 | 30 |
| Naphthalene | ND | 0.50 | 103 | 103 | 0.0 | | | | 70 - 130 | 30 |
| n-Butylbenzene | ND | 0.50 | 107 | 102 | 4.8 | | | | 70 - 130 | 30 |
| n-Propylbenzene | ND | 0.50 | 102 | 98 | 4.0 | | | | 70 - 130 | 30 |
| o-Xylene | ND | 0.50 | 103 | 97 | 6.0 | | | | 70 - 130 | 30 |
| p-Isopropyltoluene | ND | 0.50 | 108 | 102 | 5.7 | | | | 70 - 130 | 30 |
| sec-Butylbenzene | ND | 0.50 | 100 | 95 | 5.1 | | | | 70 - 130 | 30 |
| Styrene | ND | 0.50 | 104 | 100 | 3.9 | | | | 70 - 130 | 30 |
| tert-amyl methyl ether | ND | 0.50 | 98 | 90 | 8.5 | | | | 70 - 130 | 30 |
| tert-butyl alcohol | ND | 10 | 96 | 96 | 0.0 | | | | 60 - 140 | 20 |
| tert-Butylbenzene | ND | 0.50 | 104 | 97 | 7.0 | | | | 70 - 130 | 30 |
| Tetrachloroethene | ND | 0.50 | 100 | 96 | 4.1 | | | | 70 - 130 | 30 |
| Toluene | ND | 0.50 | 101 | 96 | 5.1 | | | | 70 - 130 | 30 |
| trans-1,2-Dichloroethene | ND | 0.50 | 101 | 98 | 3.0 | | | | 70 - 130 | 30 |
| trans-1,3-Dichloropropene | ND | 0.40 | 105 | 100 | 4.9 | | | | 70 - 130 | 30 |
| Trichloroethene | ND | 0.50 | 101 | 97 | 4.0 | | | | 70 - 130 | 30 |
| Trichlorofluoromethane | ND | 0.50 | 94 | 92 | 2.2 | | | | 70 - 130 | 30 |
| Trichlorotrifluoroethane | ND | 0.50 | 98 | 93 | 5.2 | | | | 70 - 130 | 30 |
| Vinyl chloride | ND | 0.50 | 98 | 96 | 2.1 | | | | 70 - 130 | 30 |
| % 1,2-dichlorobenzene-d4 | 93 | % | 104 | 103 | 1.0 | | | | 70 - 130 | 30 |
| % Bromofluorobenzene | 98 | % | 101 | 98 | 3.0 | | | | 70 - 130 | 30 |

Comment:

This batch consists of a blank, LCS and LCSD.

# QA/QC Data

SDG I.D.: GCS06055

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference
(ISO) - Isotope Dilution

Phyllis Shiller, Laboratory Director
November 20, 2024

Wednesday, November 20, 2024

Criteria: CT: DW

State: CT

# Sample Criteria Exceedances Report

## GCS06055 - WSP-BRISTLF

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Bureau of Water Protection and Land Reuse
Remediation Division

# REASONABLE CONFIDENCE PROTOCOL
# LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

| | |
|---|---|
| Laboratory Name<br>Phoenix Environmental Labs, Inc. | Client Name<br>WSP USA |
| Project Location<br>BRISTOL LF | Project No. |
| Sampling Date(s)<br>11/13/2024 | Laboratory Sample ID(s):<br>CS06055-CS06060 |

LIST RCP METHODS USED (e.g., 8260,8270, etc.) None

| | | |
|---|---|---|
| 1 | For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEEP method-specific Reasonable Confidence Protocol documents? | ☑ Yes ☐ No |
| 1A | Were the method-specified preservation and holding time requirements met? | ☑ Yes ☐ No |
| 1B | VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (see respective RCPs) | ☐ Yes ☐ No ☑ NA |
| 2 | Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)? | ☑ Yes ☐ No |
| 3 | Were samples received at an appropriate temperature (≤6° C)?<br>*If samples were received by the laboratory on the same day of collection and were stored and transported to the laboratory on ice, cooler temperatures above 6ºC are acceptable.* | ☑ Yes ☐ No ☐ NA |
| 4 | Were all QA/QC performance criteria specified in the CT DEEP Reasonable Confidence Protocol documents achieved? | ☑ Yes ☐ No |
| 5 | Were reporting limits / limits of quantitation specified or referenced on the chain-of-custody? | ☐ Yes ☑ No |
| 5a | Were these reporting limits / limits of quantitation met? | ☑ Yes ☐ No |
| 6 | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| 7 | Are project-specific matrix spikes and laboratory duplicates included in this data set for applicable RCPs? | ☐ Yes ☑ No |

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence." This form may not be altered, and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Rashmi Makol Position: Project Manager

Printed Name: Rashmi Makol Date: Wednesday, November 20, 2024

Name of Laboratory Phoenix Environmental Laboratory, Inc.

This certification form is to be used for RCP methods only.

**Environmental Laboratories, Inc.**
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

November 20, 2024

SDG I.D.: GCS06055

## *SDG Comments*

The client requested volatiles by 524.2. The RCP narrative is provided at the request of the client.

## *Low Level 1,4-Dioxane*

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:**

**CHEM34 11/18/24-1** Adam Werner, Chemist 11/18/24

CS06055 (1X), CS06056 (1X), CS06057 (1X), CS06058 (1X), CS06060 (1X)

Initial Calibration Evaluation (CHEM34/DIOX_522_0906):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

Continuing Calibration Verification (CHEM34/1118_04-DIOX_522_0906):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.

**QC (Batch Specific):**

**Batch 758504 (CS05369)**

CS06055, CS06056, CS06057, CS06058, CS06060

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

## *VOA-524*

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:**

**CHEM21 11/15/24-1** Harry Mullin, Chemist 11/15/24

CS06056 (1X), CS06057 (1X), CS06058 (1X), CS06059 (1X), CS06060 (1X)

Initial Calibration Evaluation (CHEM21/524_111324):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

524 Method Continuing Calibration Verification (CHEM21/1115_05A-524_111324):
Internal standard areas were within 70-130% of the initial calibration with the following exceptions: None.
100% of the target compounds met criteria. The following compounds did not meet minimum % deviations: None.
The following compounds did not meet recommended response factors: None.

**CHEM21 11/18/24-3** Harry Mullin, Chemist 11/18/24

CS06055 (1X)

Initial Calibration Evaluation (CHEM21/524_111824):

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

November 20, 2024

SDG I.D.: GCS06055

## *VOA-524*

100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

524 Method Continuing Calibration Verification (CHEM21/1118_24-524_111824):
Internal standard areas were within 70-130% of the initial calibration with the following exceptions: None.
100% of the target compounds met criteria. The following compounds did not meet minimum % deviations: None.
The following compounds did not meet recommended response factors: None.

### QC (Batch Specific):

**Batch 758765_(CS08083)** CHEM21 11/15/2024-1

CS06056(1X), CS06057(1X), CS06058(1X), CS06059(1X), CS06060(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
This batch consists of a blank, LCS and LCSD.

**Batch 758960_(CS09619)** CHEM21 11/18/2024-3

CS06055(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
This batch consists of a blank, LCS and LCSD.

## *Temperature Narration*

The samples were received at 5.0C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]

# PHOENIX Environmental Laboratories, Inc.

## CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-8726**

Temp 5.0 °C Pg 1 of 1

**Data Delivery/Contact Options:**
[ ] Fax:
[ ] Phone: 203-929-8555
[ ] Email: karen.destefanis@wsp.com

er: WSP
ress: 6 Reservoir Pl Ste 260
Shelton CT 06484

Project: Bristol LF
Report to: Karen DeStefanis
Invoice to: Karen DeStefanis
QUOTE #

Project P.O:

**This section MUST be completed with Bottle Quantities.**

Sampler's Signature: [signature] Date: 11/13

**Client Sample - Information - Identification**

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
**B**=Bulk **L**=Liquid **X** = _____(Other)

Analysis Request

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | VOCs 5242 | 1,4-Dioxane 522 | GL Amber 8 oz. ~~unpres~~ H2SO4 or N. H2SO4 | Soil VOA Vials [ ] methanol [ ] H2O | GL Soil container ( ) oz | GL Soil container ( ) oz | 40 ml VOA Vial [ ] As is [X] HCl | GL Amber 1000ml [ ] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 060055 | 2 E. Grannis | DW | 11/13 | 1135 | X | X | 1 | | | | 3 | | | | | | | |
| 060056 | 6 E. Grannis | DW | 11/13 | 1115 | X | X | 1 | | | | 3 | | | | | | | |
| 060057 | 12 E. Grannis | DW | 11/13 | 1045 | X | X | 1 | | | | 3 | | | | | | | |
| 060058 | 16 E. Grannis | DW | 11/13 | 1100 | X | X | 1 | | | | 3 | | | | | | | |
| 060059 | TB | DW | LAB | | X | | | | | | 2 | | | | | | | |
| 060060 | 18 E. Grannis Dup | DW | 11/13 | 1105 | X | X | 1 | | | | 3 | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| KC/EJ | Kevin | 11-13 | 1:03pm |
| | [signature] | 11/13/24 | 1311 |

**Comments, Special Requirements or Regulations:**

**Turnaround Time:**
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard
[ ] Other
* SURCHARGE APPLIES

**RI**
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

**CT**
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

**MA**
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1 GW-1 [ ] S-1 GW-2 [ ] S-1 GW-3
[ ] S-2 GW-1 [ ] S-2 GW-2 [ ] S-2 GW-3
[ ] S-3 GW-1 [ ] S-3 GW-2 [ ] S-3 GW-3
[ ] MWRA eSMART [ ] Other

**State where samples were collected:** CT

**Data Format**
[ ] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

**Data Package**
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

**Wednesday, November 27, 2024**

**Attn: Karen Destefanis**
**WSP USA**
**4 Research Dr Suite 204**
**Shelton, CT 06484**

**Project ID:** **BRISTOL LF**
**SDG ID:** **GCS11823**
**Sample ID#s:** **CS11823 - CS11824**

**This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.**

**This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.**

**A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.**

**The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.**

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**

**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**VT Lab Registration #VT11301**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

# Sample Id Cross Reference

November 27, 2024

SDG I.D.: GCS11823

Project ID: BRISTOL LF

| Client Id | Lab Id | Matrix |
|---|---|---|
| 3 GRANNIS | CS11823 | DRINKING WATER |
| TB | CS11824 | WATER |

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

November 27, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | DRINKING WATER | Collected by: | | 11/19/24 | 10:55 |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 11/20/24 | 14:45 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | P115888US001 | | | | |

## Laboratory Data

SDG ID: GCS11823
Phoenix ID: CS11823

Project ID: BRISTOL LF
Client ID: 3 GRANNIS

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |

Project ID: BRISTOL LF
Client ID: 3 GRANNIS

Phoenix I.D.: CS11823

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 11/22/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 102 | | % | 1 | 11/22/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 103 | | % | 1 | 11/22/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 11/22/24 | HM | |

## 1,4-dioxane

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,4-dioxane | ND | 0.20 | ug/l | 1 | 11/26/24 | AW | EPA522 |

**Ver 1**

Project ID: BRISTOL LF
Client ID: 3 GRANNIS

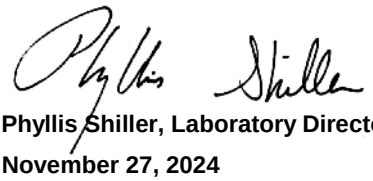
Phoenix I.D.: CS11823

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **QA/QC Surrogates** | | | | | | | |
| % 1,4-dioxane-d8 | 70 | | % | 1 | 11/26/24 | AW | 70 - 130 % |
| Extraction for 1,4-Dioxane | Completed | | | | 11/25/24 | G/G | EPA522 |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**November 27, 2024**
**Reviewed and Released by: Ethan Lee, Project Manager**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

November 27, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | WATER | Collected by: | | 11/19/24 | |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 11/20/24 | 14:45 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | P115888US001 | | | | |

## Laboratory Data

SDG ID: GCS11823
Phoenix ID: CS11824

Project ID: BRISTOL LF
Client ID: TB

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |

Project ID: BRISTOL LF
Client ID: TB

Phoenix I.D.: CS11824

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 11/21/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 103 | | % | 1 | 11/21/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 105 | | % | 1 | 11/21/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 11/22/24 | HM | |

Project ID: BRISTOL LF
Client ID: TB

Phoenix I.D.: CS11824

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

TRIP BLANK INCLUDED.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**November 27, 2024**
**Reviewed and Released by: Ethan Lee, Project Manager**

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 3 GRANNIS

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS11823

Matrix:(soil/water) DRINKING WATER  Lab Sample ID: CS11823

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1121_31.D

Level: (low/med)  Date Received: 11/20/24

% Moisture: not dec. 100  Date Analyzed: 11/22/24

GC Column: RTX-VMS  ID: 0.18(mm)  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: TB

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS11823

Matrix:(soil/water) WATER  Lab Sample ID: CS11824

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1121_27.D

Level: (low/med)  Date Received: 11/20/24

% Moisture: not dec. 100  Date Analyzed: 11/21/24

GC Column: RTX-VMS  ID: 0.18(mm)  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# QA/QC Report

November 27, 2024

## QA/QC Data

SDG I.D.: GCS11823

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 759792 (ug/l), QC Sample No: CS11823 (CS11823) | | | | | | | | | | |
| **1,4dioxane - Drinking Water** | | | | | | | | | | |
| 1,4-dioxane | ND | 0.20 | 85 | 88 | 3.5 | 80 | | | 70 - 130 | 20 |
| % 1,4-dioxane-d8 | 80 | % | 80 | 76 | 5.1 | 74 | | | 70 - 130 | 20 |
| QA/QC Batch 759524 (ug/L), QC Sample No: CS12822 (CS11823, CS11824) | | | | | | | | | | |
| **Volatiles - Drinking Water** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | 101 | 105 | 3.9 | | | | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | ND | 0.50 | 93 | 97 | 4.2 | | | | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | 102 | 106 | 3.8 | | | | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | ND | 0.50 | 101 | 105 | 3.9 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethane | ND | 0.50 | 95 | 101 | 6.1 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 0.50 | 90 | 93 | 3.3 | | | | 70 - 130 | 30 |
| 1,1-Dichloropropene | ND | 0.40 | 93 | 95 | 2.1 | | | | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | 100 | 101 | 1.0 | | | | 70 - 130 | 30 |
| 1,2,3-Trichloropropane | ND | 0.50 | 100 | 107 | 6.8 | | | | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | 95 | 100 | 5.1 | | | | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | 98 | 103 | 5.0 | | | | 70 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 0.50 | 97 | 101 | 4.0 | | | | 70 - 130 | 30 |
| 1,2-Dichloroethane | ND | 0.50 | 102 | 103 | 1.0 | | | | 70 - 130 | 30 |
| 1,2-Dichloropropane | ND | 0.50 | 99 | 100 | 1.0 | | | | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | 96 | 100 | 4.1 | | | | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 0.50 | 96 | 99 | 3.1 | | | | 70 - 130 | 30 |
| 1,3-Dichloropropane | ND | 0.50 | 98 | 105 | 6.9 | | | | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 0.50 | 99 | 102 | 3.0 | | | | 70 - 130 | 30 |
| 2,2-Dichloropropane | ND | 0.50 | 94 | 98 | 4.2 | | | | 70 - 130 | 30 |
| 2-Chlorotoluene | ND | 0.50 | 98 | 100 | 2.0 | | | | 70 - 130 | 30 |
| 4-Chlorotoluene | ND | 0.50 | 98 | 105 | 6.9 | | | | 70 - 130 | 30 |
| Benzene | ND | 0.50 | 95 | 99 | 4.1 | | | | 70 - 130 | 30 |
| Bromobenzene | ND | 0.50 | 101 | 99 | 2.0 | | | | 70 - 130 | 30 |
| Bromochloromethane | ND | 0.50 | 93 | 104 | 11.2 | | | | 70 - 130 | 30 |
| Bromodichloromethane | ND | 0.50 | 99 | 103 | 4.0 | | | | 70 - 130 | 30 |
| Bromoform | ND | 0.50 | 105 | 114 | 8.2 | | | | 70 - 130 | 30 |
| Bromomethane | ND | 0.50 | 96 | 108 | 11.8 | | | | 70 - 130 | 30 |
| Carbon tetrachloride | ND | 0.50 | 93 | 94 | 1.1 | | | | 70 - 130 | 30 |
| Chlorobenzene | ND | 0.50 | 98 | 102 | 4.0 | | | | 70 - 130 | 30 |
| Chloroethane | ND | 0.50 | 90 | 93 | 3.3 | | | | 70 - 130 | 30 |
| Chloroform | ND | 0.50 | 97 | 103 | 6.0 | | | | 70 - 130 | 30 |
| Chloromethane | ND | 0.50 | 102 | 106 | 3.8 | | | | 70 - 130 | 30 |
| cis-1,2-Dichloroethene | ND | 0.50 | 94 | 99 | 5.2 | | | | 70 - 130 | 30 |
| cis-1,3-Dichloropropene | ND | 0.40 | 98 | 105 | 6.9 | | | | 70 - 130 | 30 |
| Dibromochloromethane | ND | 0.50 | 99 | 105 | 5.9 | | | | 70 - 130 | 30 |
| Dibromomethane | ND | 0.50 | 97 | 100 | 3.0 | | | | 70 - 130 | 30 |
| Dichlorodifluoromethane | ND | 0.50 | 87 | 89 | 2.3 | | | | 70 - 130 | 30 |

# QA/QC Data

SDG I.D.: GCS11823

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethyl ether | ND | 1.0 | 94 | 97 | 3.1 | | | | 70 - 130 | 30 |
| Ethyl tert-butyl ether | ND | 1.0 | 98 | 104 | 5.9 | | | | 70 - 130 | 30 |
| Ethylbenzene | ND | 0.50 | 97 | 104 | 7.0 | | | | 70 - 130 | 30 |
| Hexachlorobutadiene | ND | 0.40 | 88 | 89 | 1.1 | | | | 70 - 130 | 30 |
| Isopropylbenzene | ND | 0.50 | 96 | 102 | 6.1 | | | | 70 - 130 | 30 |
| m&p-Xylene | ND | 0.50 | 96 | 102 | 6.1 | | | | 70 - 130 | 30 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | 100 | 102 | 2.0 | | | | 70 - 130 | 30 |
| Methylene chloride | ND | 0.50 | 94 | 99 | 5.2 | | | | 70 - 130 | 30 |
| Naphthalene | ND | 0.50 | 102 | 105 | 2.9 | | | | 70 - 130 | 30 |
| n-Butylbenzene | ND | 0.50 | 93 | 95 | 2.1 | | | | 70 - 130 | 30 |
| n-Propylbenzene | ND | 0.50 | 96 | 99 | 3.1 | | | | 70 - 130 | 30 |
| o-Xylene | ND | 0.50 | 99 | 103 | 4.0 | | | | 70 - 130 | 30 |
| p-Isopropyltoluene | ND | 0.50 | 93 | 98 | 5.2 | | | | 70 - 130 | 30 |
| sec-Butylbenzene | ND | 0.50 | 94 | 94 | 0.0 | | | | 70 - 130 | 30 |
| Styrene | ND | 0.50 | 98 | 106 | 7.8 | | | | 70 - 130 | 30 |
| tert-amyl methyl ether | ND | 0.50 | 96 | 103 | 7.0 | | | | 70 - 130 | 30 |
| tert-butyl alcohol | ND | 10 | 116 | 118 | 1.7 | | | | 60 - 140 | 20 |
| tert-Butylbenzene | ND | 0.50 | 95 | 97 | 2.1 | | | | 70 - 130 | 30 |
| Tetrachloroethene | ND | 0.50 | 93 | 97 | 4.2 | | | | 70 - 130 | 30 |
| Toluene | ND | 0.50 | 95 | 102 | 7.1 | | | | 70 - 130 | 30 |
| trans-1,2-Dichloroethene | ND | 0.50 | 91 | 95 | 4.3 | | | | 70 - 130 | 30 |
| trans-1,3-Dichloropropene | ND | 0.40 | 97 | 102 | 5.0 | | | | 70 - 130 | 30 |
| Trichloroethene | ND | 0.50 | 96 | 100 | 4.1 | | | | 70 - 130 | 30 |
| Trichlorofluoromethane | ND | 0.50 | 87 | 88 | 1.1 | | | | 70 - 130 | 30 |
| Trichlorotrifluoroethane | ND | 0.50 | 87 | 88 | 1.1 | | | | 70 - 130 | 30 |
| Vinyl chloride | ND | 0.50 | 89 | 93 | 4.4 | | | | 70 - 130 | 30 |
| % 1,2-dichlorobenzene-d4 | 99 | % | 95 | 99 | 4.1 | | | | 70 - 130 | 30 |
| % Bromofluorobenzene | 100 | % | 99 | 99 | 0.0 | | | | 70 - 130 | 30 |

Comment:

This batch consists of a blank, LCS and LCSD.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference
(ISO) - Isotope Dilution

Phyllis Shiller, Laboratory Director
November 27, 2024

Wednesday, November 27, 2024

Criteria: CT: DW

State: CT

# Sample Criteria Exceedances Report

## GCS11823 - WSP-BRISTLF

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Bureau of Water Protection and Land Reuse
Remediation Division

# REASONABLE CONFIDENCE PROTOCOL
# LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

| | |
|---|---|
| Laboratory Name<br>Phoenix Environmental Labs, Inc. | Client Name<br>WSP USA |
| Project Location<br>BRISTOL LF | Project No. |
| Sampling Date(s)<br>11/19/2024 | Laboratory Sample ID(s):<br>CS11823, CS11824 |

LIST RCP METHODS USED (e.g., 8260,8270, etc.) None

| | | |
|---|---|---|
| 1 | For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEEP method-specific Reasonable Confidence Protocol documents? | ☑ Yes ☐ No |
| 1A | Were the method-specified preservation and holding time requirements met? | ☑ Yes ☐ No |
| 1B | VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (see respective RCPs) | ☐ Yes ☐ No ☑ NA |
| 2 | Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)? | ☑ Yes ☐ No |
| 3 | Were samples received at an appropriate temperature (≤6° C)?<br>*If samples were received by the laboratory on the same day of collection and were stored and transported to the laboratory on ice, cooler temperatures above 6ºC are acceptable.* | ☑ Yes ☐ No ☐ NA |
| 4 | Were all QA/QC performance criteria specified in the CT DEEP Reasonable Confidence Protocol documents achieved? | ☑ Yes ☐ No |
| 5 | Were reporting limits / limits of quantitation specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| 5a | Were these reporting limits / limits of quantitation met? | ☑ Yes ☐ No |
| 6 | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| 7 | Are project-specific matrix spikes and laboratory duplicates included in this data set for applicable RCPs? | ☑ Yes ☐ No |

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence." This form may not be altered, and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Ethan Lee Position: Project Manager

Printed Name: Ethan Lee Date: Wednesday, November 27, 2024

Name of Laboratory Phoenix Environmental Laboratory, Inc.

This certification form is to be used for RCP methods only.

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

November 27, 2024

SDG I.D.: GCS11823

## *SDG Comments*

Volatiles Analysis:
The client requested volatiles by 524.2. This method has a shorter list of compounds than the RCP volatile list.

## *Low Level 1,4-Dioxane*

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:**

**CHEM34 11/26/24-1** Adam Werner, Chemist 11/26/24

CS11823 (1X)

Initial Calibration Evaluation (CHEM34/DIOX_522_0906):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

Continuing Calibration Verification (CHEM34/1126_04-DIOX_522_0906):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.

**QC (Site Specific):**

**Batch 759792 (CS11823)**

CS11823

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
All MS recoveries were within 70 - 130 with the following exceptions: None.

## *VOA-524*

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:**

**CHEM15 11/21/24-2** Harry Mullin, Chemist 11/21/24

CS11823 (1X), CS11824 (1X)

Initial Calibration Evaluation (CHEM15/524_112124):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

524 Method Continuing Calibration Verification (CHEM15/1121_17-524_112124):
Internal standard areas were within 70-130% of the initial calibration with the following exceptions: None.
100% of the target compounds met criteria. The following compounds did not meet minimum % deviations: None.
The following compounds did not meet recommended response factors: None.

**QC (Batch Specific):**

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045**
**Tel. (860) 645-1102 Fax (860) 645-0823**

NY # 11301

# RCP Certification Report

November 27, 2024

SDG I.D.: GCS11823

## *VOA-524*

**Batch 759524 (CS12822)** CHEM15 11/21/2024-2

CS11823(1X), CS11824(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
This batch consists of a blank, LCS and LCSD.

## *Temperature Narration*

The samples were received at 2.0C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

# PHOENIX
*Environmental Laboratories, Inc.*

## CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email Makrina Nolan: makrina@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-1102**

Temp 2.0 °C Pg 1 of 1

**Data Delivery/Contact Options:**
[ ] Fax:
[ ] Phone: 203-929-8555
[ ] Email: Karen.degrebus@wsp.com

Customer: WSP
Address: 6 Research Pl Ste 260
Shelton CT 06484

Project: Bristol LF
Report to: Karen Degrebus
Invoice to: Karen Degrebus
QUOTE #

Project P.O: P115888US001

**This section MUST be completed with Bottle Quantities.**

**Client Sample - Information - Identification**

Sampler's Signature: [signature] Date: 11/19

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
**B**=Bulk **L**=Liquid **X** = _____(Other)

Analysis Request

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | VOCs 524.2 14-Dioxane 522 | MS/MSD* | GL Amber 8 oz. [ ] H3PO4 [X] NAHSO4 | Soil VOA Vials [ ] methanol [ ] H2O | GL Soil container ( ) oz | GL Soil container ( ) oz | 40 ml VOA Vial [ ] As is [X] HCL | GL Amber 1000ml [ ] As is [ ] H2SO4 | PL As is [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11823 | 3 Grannis | DW | 11/15 | 1055 | X | X | | | | | | | | | | 1 | | 3 |
| 11824 | TB | DW | 11/13 | | X | | | | | | | | | | | | | 2 |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] WSP Fridge | WSP Fridge | 11/19 | 1150 |
| | [signature] | 11/20 | 1030 |
| | Emily A | 11/20/24 | 1445 |

**Comments, Special Requirements or Regulations:**

*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

**Turnaround Time:**
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard
[ ] Other
* SURCHARGE APPLIES

**RI**
[ ] (Residential) Direct Exposure
[ ] (Comm/Industrial) Direct Exposure
[ ] GA Leachability
[ ] GB Leachability
[ ] GA-GW Objectives
[ ] GB-GW Objectives

**CT**
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

**MA**
[ ] MCP Certification
[ ] GW-1 [ ] MWRA eSMART
[ ] GW-2 [ ] S-1 10% CALC
[ ] GW-3
[ ] S-1 GW-1 [ ] S-1 GW-2 [ ] S-1 GW-3
[ ] S-2 GW-1 [ ] S-2 GW-2 [ ] S-2 GW-3
[ ] S-3 GW-1 [ ] S-3 GW-2 [ ] S-3 GW-3
[ ] SW Protection

**State where samples were collected:** CT

**Data Format**
[ ] Excel
[ ] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

**Data Package**
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

PEL-126 REV. 03/22

**Monday, December 30, 2024**

**Attn: Karen Destefanis**
**WSP USA**
**4 Research Dr Suite 204**
**Shelton, CT 06484**

**Project ID:** **BRISTOL LF**
**SDG ID:** **GCS31666**
**Sample ID#s:** **CS31666 - CS31667**

**This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.**

**This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.**

**A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.**

**The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.**

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**

**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**VT Lab Registration #VT11301**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

# Sample Id Cross Reference

December 30, 2024

SDG I.D.: GCS31666

Project ID: BRISTOL LF

| Client Id | Lab Id | Matrix |
|---|---|---|
| 464 CHURCHILL | CS31666 | DRINKING WATER |
| TB | CS31667 | WATER |

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

December 30, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | DRINKING WATER | Collected by: | | 12/18/24 | 10:12 |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 12/19/24 | 14:00 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | P115888US001 | | | | |

## Laboratory Data

SDG ID: GCS31666
Phoenix ID: CS31666

Project ID: BRISTOL LF
Client ID: 464 CHURCHILL

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |

Project ID: BRISTOL LF
Client ID: 464 CHURCHILL

Phoenix I.D.: CS31666

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | % | 1 | 12/21/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 98 | | % | 1 | 12/21/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 12/23/24 | HM | |

## 1,4-dioxane

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,4-dioxane | ND | 0.20 | ug/l | 1 | 12/26/24 | AW | EPA522 |

**Ver 1**

Project ID: BRISTOL LF
Client ID: 464 CHURCHILL

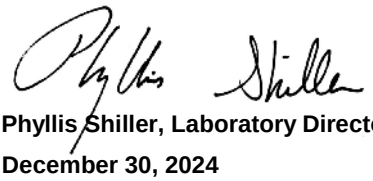
Phoenix I.D.: CS31666

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **QA/QC Surrogates** | | | | | | | |
| % 1,4-dioxane-d8 | 79 | | % | 1 | 12/26/24 | AW | 70 - 130 % |
| Extraction for 1,4-Dioxane | Completed | | | | 12/24/24 | G/G | EPA522 |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 30, 2024**
**Reviewed and Released by: Ethan Lee, Project Manager**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# Analysis Report

December 30, 2024

FOR: Attn: Karen Destefanis
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | WATER | Collected by: | | 12/18/24 | |
| Location Code: | WSP-BRISTLF | Received by: | SR1 | 12/19/24 | 14:00 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | P115888US001 | | | | |

## Laboratory Data

SDG ID: GCS31666
Phoenix ID: CS31667

Project ID: BRISTOL LF
Client ID: TB

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles, Oxygenates** | | | | | | | |
| Diethyl ether | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Ethyl tert-butyl ether | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| tert-amyl methyl ether | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| tert-butyl alcohol | ND | 10 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1,1-Trichloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1,2-Trichloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1,2-Trichlorotrifluoroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1-Dichloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1-Dichloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,1-Dichloropropene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2,3-Trichloropropane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,3-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,3-Dichloropropane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 1,4-Dichlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 2,2-Dichloropropane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |

Project ID: BRISTOL LF
Client ID: TB

Phoenix I.D.: CS31667

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorotoluene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| 4-Chlorotoluene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Benzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromochloromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromodichloromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromoform | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Bromomethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Chlorobenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Chloroethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Chloroform | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Chloromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| cis-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| cis-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Dibromochloromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Dibromomethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Dichlorodifluoromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Ethylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Hexachlorobutadiene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Isopropylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| m&p-Xylene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Methylene chloride | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Naphthalene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| n-Butylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| n-Propylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| o-Xylene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| p-Isopropyltoluene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| sec-Butylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Styrene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| tert-Butylbenzene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Tetrachloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Toluene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Total 1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Total Trihalomethanes | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Total Xylenes | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| trans-1,2-Dichloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| trans-1,3-Dichloropropene | ND | 0.40 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Trichloroethene | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Trichlorofluoromethane | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| Vinyl chloride | ND | 0.50 | ug/L | 1 | 12/21/24 | HM | E524.2 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | % | 1 | 12/21/24 | HM | 70 - 130 % |
| % Bromofluorobenzene | 101 | | % | 1 | 12/21/24 | HM | 70 - 130 % |
| Volatile Library Search | Completed | | | | 12/23/24 | HM | |

**Ver 1**

Project ID: BRISTOL LF
Client ID: TB

Phoenix I.D.: CS31667

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

TRIP BLANK INCLUDED.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 30, 2024**
**Reviewed and Released by: Ethan Lee, Project Manager**

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 464 CHURCHILL

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS31666

Matrix:(soil/water) DRINKING WATER  Lab Sample ID: CS31666

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1220_48.D

Level: (low/med)  Date Received: 12/19/24

% Moisture: not dec. 100  Date Analyzed: 12/21/24

GC Column: RTX-VMS  ID: 0.18mm  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: TB

Lab Name: Phoenix Environmental Labs  Client: WSP-BRISTLF

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCS3166

Matrix:(soil/water) WATER  Lab Sample ID: CS31667

Sample wt/vol: 5 (g/mL) mL  Lab File ID: 1220_39.D

Level: (low/med)  Date Received: 12/19/24

% Moisture: not dec. 100  Date Analyzed: 12/21/24

GC Column: RTX-VMS  ID: 0.18mm  Dilution Factor: 1

Purge Volume: 5000 (uL)  Soil Aliquot Vol (uL): n.a.

CONCENTRATION UNITS:
Number TICs found: 0  (ug/L or ug/KG) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
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FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.
N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified
Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

# QA/QC Report

December 30, 2024

## QA/QC Data

SDG I.D.: GCS31666

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 764029 (ug/l), QC Sample No: CS31666 (CS31666) | | | | | | | | | | |
| **1,4dioxane - Drinking Water** | | | | | | | | | | |
| 1,4-dioxane | ND | 0.20 | 86 | 84 | 2.4 | 76 | | | 70 - 130 | 20 |
| % 1,4-dioxane-d8 | 79 | % | 81 | 80 | 1.2 | 76 | | | 70 - 130 | 20 |
| QA/QC Batch 763874 (ug/L), QC Sample No: CS31548 (CS31666, CS31667) | | | | | | | | | | |
| **Volatiles - Drinking Water** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | 108 | 108 | 0.0 | | | | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | ND | 0.50 | 101 | 101 | 0.0 | | | | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | 104 | 102 | 1.9 | | | | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | ND | 0.50 | 107 | 106 | 0.9 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethane | ND | 0.50 | 98 | 99 | 1.0 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 0.50 | 94 | 94 | 0.0 | | | | 70 - 130 | 30 |
| 1,1-Dichloropropene | ND | 0.40 | 98 | 100 | 2.0 | | | | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene | ND | 0.50 | 106 | 102 | 3.8 | | | | 70 - 130 | 30 |
| 1,2,3-Trichloropropane | ND | 0.50 | 110 | 105 | 4.7 | | | | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 0.50 | 115 | 108 | 6.3 | | | | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene | ND | 0.50 | 121 | 117 | 3.4 | | | | 70 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 0.50 | 110 | 105 | 4.7 | | | | 70 - 130 | 30 |
| 1,2-Dichloroethane | ND | 0.50 | 109 | 103 | 5.7 | | | | 70 - 130 | 30 |
| 1,2-Dichloropropane | ND | 0.50 | 102 | 96 | 6.1 | | | | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene | ND | 0.50 | 112 | 109 | 2.7 | | | | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 0.50 | 112 | 107 | 4.6 | | | | 70 - 130 | 30 |
| 1,3-Dichloropropane | ND | 0.50 | 103 | 100 | 3.0 | | | | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 0.50 | 113 | 109 | 3.6 | | | | 70 - 130 | 30 |
| 2,2-Dichloropropane | ND | 0.50 | 93 | 93 | 0.0 | | | | 70 - 130 | 30 |
| 2-Chlorotoluene | ND | 0.50 | 108 | 106 | 1.9 | | | | 70 - 130 | 30 |
| 4-Chlorotoluene | ND | 0.50 | 113 | 109 | 3.6 | | | | 70 - 130 | 30 |
| Benzene | ND | 0.50 | 101 | 97 | 4.0 | | | | 70 - 130 | 30 |
| Bromobenzene | ND | 0.50 | 112 | 107 | 4.6 | | | | 70 - 130 | 30 |
| Bromochloromethane | ND | 0.50 | 109 | 104 | 4.7 | | | | 70 - 130 | 30 |
| Bromodichloromethane | ND | 0.50 | 110 | 106 | 3.7 | | | | 70 - 130 | 30 |
| Bromoform | ND | 0.50 | 112 | 106 | 5.5 | | | | 70 - 130 | 30 |
| Bromomethane | ND | 0.50 | 106 | 103 | 2.9 | | | | 70 - 130 | 30 |
| Carbon tetrachloride | ND | 0.50 | 103 | 100 | 3.0 | | | | 70 - 130 | 30 |
| Chlorobenzene | ND | 0.50 | 106 | 104 | 1.9 | | | | 70 - 130 | 30 |
| Chloroethane | ND | 0.50 | 101 | 101 | 0.0 | | | | 70 - 130 | 30 |
| Chloroform | ND | 0.50 | 108 | 105 | 2.8 | | | | 70 - 130 | 30 |
| Chloromethane | ND | 0.50 | 110 | 101 | 8.5 | | | | 70 - 130 | 30 |
| cis-1,2-Dichloroethene | ND | 0.50 | 105 | 107 | 1.9 | | | | 70 - 130 | 30 |
| cis-1,3-Dichloropropene | ND | 0.40 | 107 | 102 | 4.8 | | | | 70 - 130 | 30 |
| Dibromochloromethane | ND | 0.50 | 108 | 104 | 3.8 | | | | 70 - 130 | 30 |
| Dibromomethane | ND | 0.50 | 109 | 106 | 2.8 | | | | 70 - 130 | 30 |
| Dichlorodifluoromethane | ND | 0.50 | 102 | 101 | 1.0 | | | | 70 - 130 | 30 |

# QA/QC Data

SDG I.D.: GCS31666

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethyl ether | ND | 1.0 | 100 | 94 | 6.2 | | | | 70 - 130 | 30 |
| Ethyl tert-butyl ether | ND | 1.0 | 104 | 105 | 1.0 | | | | 70 - 130 | 30 |
| Ethylbenzene | ND | 0.50 | 106 | 105 | 0.9 | | | | 70 - 130 | 30 |
| Hexachlorobutadiene | ND | 0.40 | 107 | 105 | 1.9 | | | | 70 - 130 | 30 |
| Isopropylbenzene | ND | 0.50 | 109 | 104 | 4.7 | | | | 70 - 130 | 30 |
| m&p-Xylene | ND | 0.50 | 108 | 108 | 0.0 | | | | 70 - 130 | 30 |
| Methyl t-butyl ether (MTBE) | ND | 0.50 | 103 | 105 | 1.9 | | | | 70 - 130 | 30 |
| Methylene chloride | ND | 0.50 | 99 | 94 | 5.2 | | | | 70 - 130 | 30 |
| Naphthalene | ND | 0.50 | 112 | 108 | 3.6 | | | | 70 - 130 | 30 |
| n-Butylbenzene | ND | 0.50 | 109 | 102 | 6.6 | | | | 70 - 130 | 30 |
| n-Propylbenzene | ND | 0.50 | 107 | 107 | 0.0 | | | | 70 - 130 | 30 |
| o-Xylene | ND | 0.50 | 109 | 104 | 4.7 | | | | 70 - 130 | 30 |
| p-Isopropyltoluene | ND | 0.50 | 119 | 113 | 5.2 | | | | 70 - 130 | 30 |
| sec-Butylbenzene | ND | 0.50 | 106 | 104 | 1.9 | | | | 70 - 130 | 30 |
| Styrene | ND | 0.50 | 114 | 107 | 6.3 | | | | 70 - 130 | 30 |
| tert-amyl methyl ether | ND | 0.50 | 98 | 107 | 8.8 | | | | 70 - 130 | 30 |
| tert-butyl alcohol | ND | 10 | 117 | 113 | 3.5 | | | | 60 - 140 | 20 |
| tert-Butylbenzene | ND | 0.50 | 107 | 105 | 1.9 | | | | 70 - 130 | 30 |
| Tetrachloroethene | ND | 0.50 | 103 | 100 | 3.0 | | | | 70 - 130 | 30 |
| Toluene | ND | 0.50 | 102 | 101 | 1.0 | | | | 70 - 130 | 30 |
| trans-1,2-Dichloroethene | ND | 0.50 | 103 | 99 | 4.0 | | | | 70 - 130 | 30 |
| trans-1,3-Dichloropropene | ND | 0.40 | 107 | 108 | 0.9 | | | | 70 - 130 | 30 |
| Trichloroethene | ND | 0.50 | 107 | 105 | 1.9 | | | | 70 - 130 | 30 |
| Trichlorofluoromethane | ND | 0.50 | 100 | 95 | 5.1 | | | | 70 - 130 | 30 |
| Trichlorotrifluoroethane | ND | 0.50 | 97 | 93 | 4.2 | | | | 70 - 130 | 30 |
| Vinyl chloride | ND | 0.50 | 97 | 91 | 6.4 | | | | 70 - 130 | 30 |
| % 1,2-dichlorobenzene-d4 | 97 | % | 107 | 105 | 1.9 | | | | 70 - 130 | 30 |
| % Bromofluorobenzene | 96 | % | 102 | 101 | 1.0 | | | | 70 - 130 | 30 |

Comment:

This batch consists of a blank, LCS and LCSD.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference
(ISO) - Isotope Dilution

Phyllis Shiller, Laboratory Director
December 30, 2024

Monday, December 30, 2024

Criteria: CT: DW

State: CT

# Sample Criteria Exceedances Report

## GCS31666 - WSP-BRISTLF

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Bureau of Water Protection and Land Reuse
Remediation Division

# REASONABLE CONFIDENCE PROTOCOL
# LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

| | |
|---|---|
| Laboratory Name<br>Phoenix Environmental Labs, Inc. | Client Name<br>WSP USA |
| Project Location<br>BRISTOL LF | Project No. |
| Sampling Date(s)<br>12/18/2024 | Laboratory Sample ID(s):<br>CS31666, CS31667 |

LIST RCP METHODS USED (e.g., 8260,8270, etc.) None

| | | |
|---|---|---|
| 1 | For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEEP method-specific Reasonable Confidence Protocol documents? | ☑ Yes ☐ No |
| 1A | Were the method-specified preservation and holding time requirements met? | ☑ Yes ☐ No |
| 1B | VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (see respective RCPs) | ☐ Yes ☐ No ☑ NA |
| 2 | Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)? | ☑ Yes ☐ No |
| 3 | Were samples received at an appropriate temperature (≤6° C)?<br>*If samples were received by the laboratory on the same day of collection and were stored and transported to the laboratory on ice, cooler temperatures above 6ºC are acceptable.* | ☑ Yes ☐ No ☐ NA |
| 4 | Were all QA/QC performance criteria specified in the CT DEEP Reasonable Confidence Protocol documents achieved? | ☑ Yes ☐ No |
| 5 | Were reporting limits / limits of quantitation specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| 5a | Were these reporting limits / limits of quantitation met? | ☑ Yes ☐ No |
| 6 | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| 7 | Are project-specific matrix spikes and laboratory duplicates included in this data set for applicable RCPs? | ☑ Yes ☐ No |

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence." This form may not be altered, and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Ethan Lee Position: Project Manager

Printed Name: Ethan Lee Date: Monday, December 30, 2024

Name of Laboratory Phoenix Environmental Laboratory, Inc.

This certification form is to be used for RCP methods only.

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

December 30, 2024

SDG I.D.: GCS31666

## *SDG Comments*

Volatiles Analysis:
The client requested volatiles by 524.2. This method has a shorter list of compounds than the RCP volatile list.

## *Low Level 1,4-Dioxane*

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:**

**CHEM34 12/26/24-1** Adam Werner, Chemist 12/26/24

CS31666 (1X)

Initial Calibration Evaluation (CHEM34/DIOX_522_0906):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

Continuing Calibration Verification (CHEM34/1226_04-DIOX_522_0906):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.

**QC (Site Specific):**

**Batch 764029 (CS31666)**

CS31666

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
All MS recoveries were within 70 - 130 with the following exceptions: None.

## *VOA-524*

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:**

**CHEM21 12/20/24-2** Harry Mullin, Chemist 12/20/24

CS31666 (1X), CS31667 (1X)

Initial Calibration Evaluation (CHEM21/524_121624):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

524 Method Continuing Calibration Verification (CHEM21/1220_30-524_121624):
Internal standard areas were within 70-130% of the initial calibration with the following exceptions: None.
100% of the target compounds met criteria. The following compounds did not meet minimum % deviations: None.
The following compounds did not meet recommended response factors: None.

**QC (Batch Specific):**

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

December 30, 2024

SDG I.D.: GCS31666

## *VOA-524*

**Batch 763874 (CS31548)** CHEM21 12/20/2024-2

CS31666(1X), CS31667(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
This batch consists of a blank, LCS and LCSD.

## *Temperature Narration*

The samples were received at 1.4C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes (X) No ( )
Coolant: IPK (X) ICE ( ) No ( )

# CHAIN OF CUSTODY RECORD

Temp 1.7 °C Pg 1 of 1

**PHOENIX**
*Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-8726**

**Data Delivery/Contact Options:**
( ) Fax:
( ) Phone: 203-929-8555
( ) Email: Karen.Desteberts@wsp.com

Customer: WSP
Address: 6 Research Dr Ste 260
Shelton CT 06484

Project: Bristol LF
Report to: Karen Desteberts
Invoice to: SAME
QUOTE #

Project P.O:

***This section MUST be completed with Bottle Quantities.***

**Client Sample - Information - Identification**

Sampler's Signature: [signature] Date: 12/18/24

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
**B**=Bulk **L**=Liquid **X** = _____(Other)

Analysis Request

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | VOCs 524.2 | 1,4-Dioxane 522 | MS/MSD * | GL Amber 8 oz. unpres. NA 8524 | Soil VOA Vials [ ] methanol [ ] H2O | GL Soil container ( ) oz | GL Soil container ( ) oz | 40 ml VOA Vial [ ] As is [X] HCL | GL Amber 1000ml [ ] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 316666 | 464 Church St | DW | 12/18/24 | 1012 | X | X | | 1 | | | 3 | | | | | | | | |
| 316667 | TB | DW | LAB | LAB | X | | | | | | 2 | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | WSP Fedex | 12/18/24 | 1110 |
| [signature] | [signature] | 12/19/24 | 0841 |
| [signature] | [signature] | 12/19/24 | 10:00 |

**Comments, Special Requirements or Regulations:**

**MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.*

**Turnaround Time:**
( ) 1 Day*
( ) 2 Days*
( ) 3 Days*
(X) Standard
( ) Other
*** SURCHARGE APPLIES**

**RI**
( ) (Residential) Direct Exposure
( ) (Comm/Industrial) Direct Exposure
( ) GA Leachability
( ) GB Leachability
( ) GA-GW Objectives
( ) GB-GW Objectives

**CT**
(X) RCP Cert
( ) GW Protection
( ) SW Protection
( ) GA Mobility
( ) GB Mobility
( ) Residential DEC
( ) I/C DEC
( ) Other

**MA**
( ) MCP Certification
( ) GW-1 ( ) MWRA eSMART
( ) GW-2 ( ) S-1 10% CALC
( ) GW-3
( ) S-1 GW-1 ( ) S-1 GW-2 ( ) S-1 GW-3
( ) S-2 GW-1 ( ) S-2 GW-2 ( ) S-2 GW-3
( ) S-3 GW-1 ( ) S-3 GW-2 ( ) S-3 GW-3
( ) SW Protection

**State where samples were collected:** CT

**Data Format**
( ) Excel
(X) PDF
( ) GIS/Key
( ) EQuIS
( ) Other

**Data Package**
( ) Tier II Checklist
( ) Full Data Package*
( ) Phoenix Std Report
( ) Other

*** SURCHARGE APPLIES**

PEL-126 REV. 06/20

## Lisa Arnold

From: Destefanis, Karen <Karen.Destefanis@wsp.com>
Sent: Friday, December 20, 2024 8:30 AM
To: Lisa Arnold; Sarah Bell
Subject: FW: Phoenix Labs - GCS31666, BRISTOL LF - COC Acknowledgement
Attachments: Sample Acknowledgement.pdf; PO_P115888US001_0.pdf

Good morning

Following up on my earlier email related to Bristol

Can you please make sure to reference this PO number for this potable sample too

Thanks!

Karen

---

From: SampleReceiving@phoenixlabs.com <SampleReceiving@phoenixlabs.com>
Sent: Thursday, December 19, 2024 7:20 PM
To: Destefanis, Karen <Karen.Destefanis@wsp.com>
Subject: Phoenix Labs - GCS31666, BRISTOL LF - COC Acknowledgement

This is an automated sample acknowledgement.

If you were issued a Phoenix Price Quote # for this SDG and it was not listed on the chain, please email client services with the quote number so we can ensure proper invoicing. If no quote was issued, no further action is required.

If you have a PO# that is required for this SDG, and you need it listed on your invoice please email client services so we can be sure to get the PO# listed on the invoice. If no PO# is required, no further action is required.

Samples Will Be Disposed After: 30 Days

GCS31666 Criteria:
DRINKING WATER(1): CT DW (Drinking Water)

Please email client services only if you require criteria different than what is listed. Criteria added post-reporting requires re-evaluation of data and possible re-analysis therefore charges may apply. Project objectives not communicated at time of submittal may not be achieved.

Delivery group GCS31666 (BRISTOL LF ) has been logged in for the following samples:

| Phoenix Id | Client Id |
|---|---|
| CS31666 | 464 CHURCHILL |
| CS31667 | TB |

This SDG has been logged in for Standard 7 business day turn-around time.

The samples were received at 1.4C with cooling initiated. (Note acceptance criteria for relevant matrices is above freezing up to 6°C)

If there are any questions regarding this submittal, please call Phoenix Client Services at extension 200.

Thank you for your business,

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102
Fax. (860) 645-0823
www.phoenixlabs.com

Please do not reply to this email.
cc'd:Karen.Destefanis@wsp.com

---



-LAEmHhHzdJzBlTWfa4Hgs7pbKI

# Purchase Order P115888US001

SOLD TO: **WSP USA Inc.**
One Penn Plaza
4th Floor
New York, NY 10119-
United States

SHIP TO: 6 Research Drive
Suite 260
Shelton, FairfieldCT 06484-
United States

BILL TO: WSP USA Inc.
One Penn Plaza
4th Floor
New York, NY 10119-
United States

CONTACT: **Patrick Staub**
1-475-882-1722
Patrick.Staub@wsp.com

| | |
|---|---|
| **Order Number** | **P115888US001** |
| **Subcontract Number** | |
| **Agreement Number** | |
| **Order Date** | **18-NOV-2024** |
| **Revision Number** | **0** |
| **Revision Date** | |
| **Buyer** | **Touchless Buyer - US**<br>**Touchless Buyer - US** |
| **Amount** | **1,600.00 USD** |

SUPPLIER: **PHOENIX ENVIRONMENTAL LAB INC**
587 East Middle Turnpike
MANCHESTER
06040, US

SUPPLIER CONTACT:

**THE ABOVE PO NUMBER MUST APPEAR ON ALL AP INVOICES AND ON DOCUMENTATION RELATIVE TO THIS ORDER**

**Reference Documents:**

| Supplier Number | Currency | Payment terms | Freight Terms | Delivery Terms | Shipping Method |
|---|---|---|---|---|---|
| 10026568 | USD | Net 60 | | DESTINATION | |
| **Project Name** | | **Project Manager** | | **Project Number** | **Project Task Number** |
| US-Bristol Landfill Monitoring | | Destefanis, Karen | | US-WSP-31402096.3236 | 1.0 |

| Line# | Schedule | Description | Delivery Date | Quantity | UOM | Unit Price | Amount |
|---|---|---|---|---|---|---|---|
| 1 | 1 | Bristol Landfill - 2024 Homeowner Sampling Lab Analytical | **2024/11/19** | | | 1,600.00 | 1,600.00 |

**Purchase Order Total (Exclusive of Taxes): 1,600.00**

| WSP USA Inc. | PHOENIX ENVIRONMENTAL LAB INC |
|---|---|
| Name: | Name: |
| Title: | Title: |
| Signature: | Signature: |
| Date: | Date: |

# APPENDIX II

March 18, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
January 2024

Dear Mr. Rogozinski:

On January 29, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and clear of vegetation. Most surfaces of the MHSL were dry; standing water was observed in the northeast swale. Overall conditions on the MHSL were good. The three corners of the cell did exhibit yellow grass. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis or Lauren DeHoyos of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
h:\bristol\mhsl\2024\january mhsl inspection letter.docx

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**JANUARY 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**JANUARY 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: L. DeHoyos Date/Time: 1/29/2024, 1030

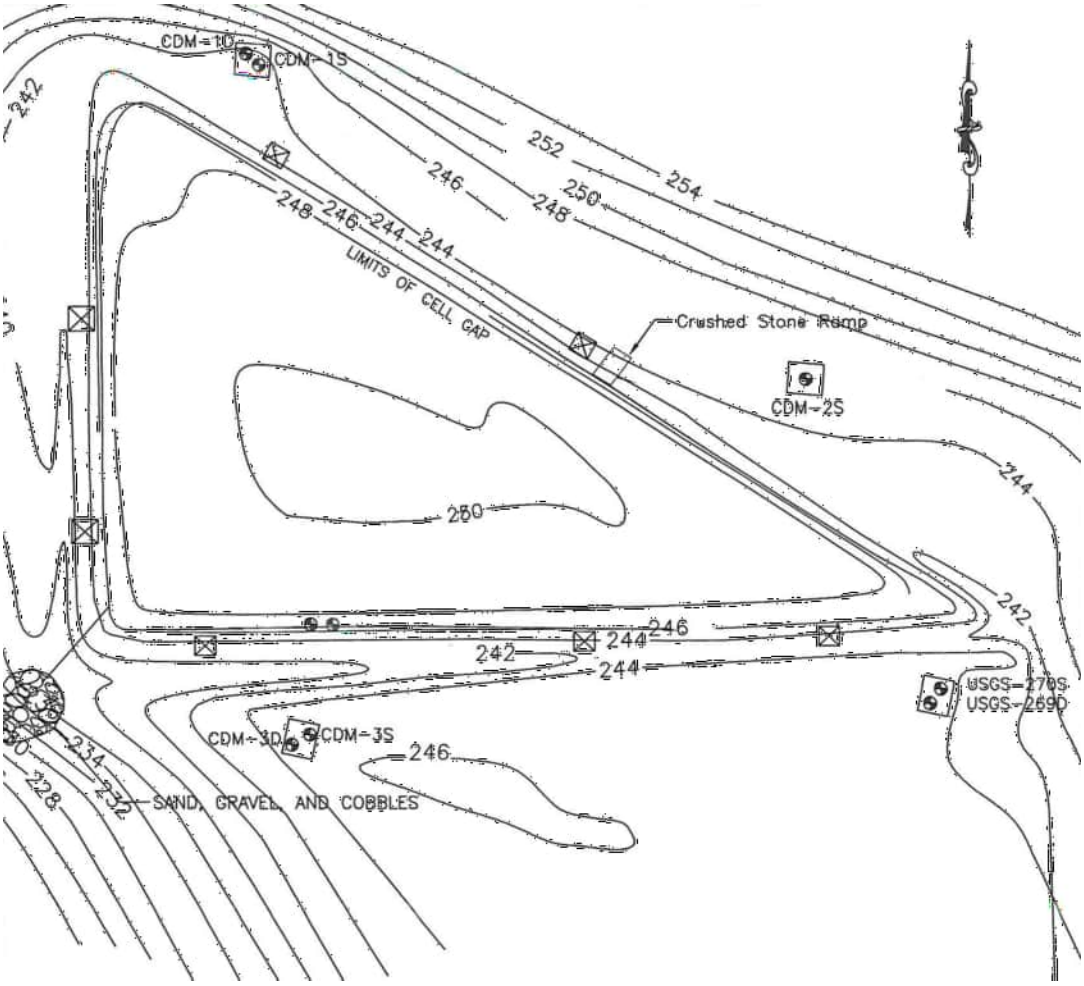
Weather Conditions: Overcast/Cloudy , 35°F

Reason for site visit: January MHSL Monthly Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes: *B3- (3) Corners of MHSL cell exhibit yellowed grass




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
| | |
| | |
| | |
| | |
| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

March 18, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
February 2024

Dear Mr. Rogozinski:

On February 16, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and clear of vegetation. Most surfaces of the MHSL were dry. Overall conditions on the MHSL were good. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis or Lauren DeHoyos of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
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WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**FEBRUARY 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**FEBRUARY 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: Lauren DeHoyos Date/Time: 1100, Feb 16 2024

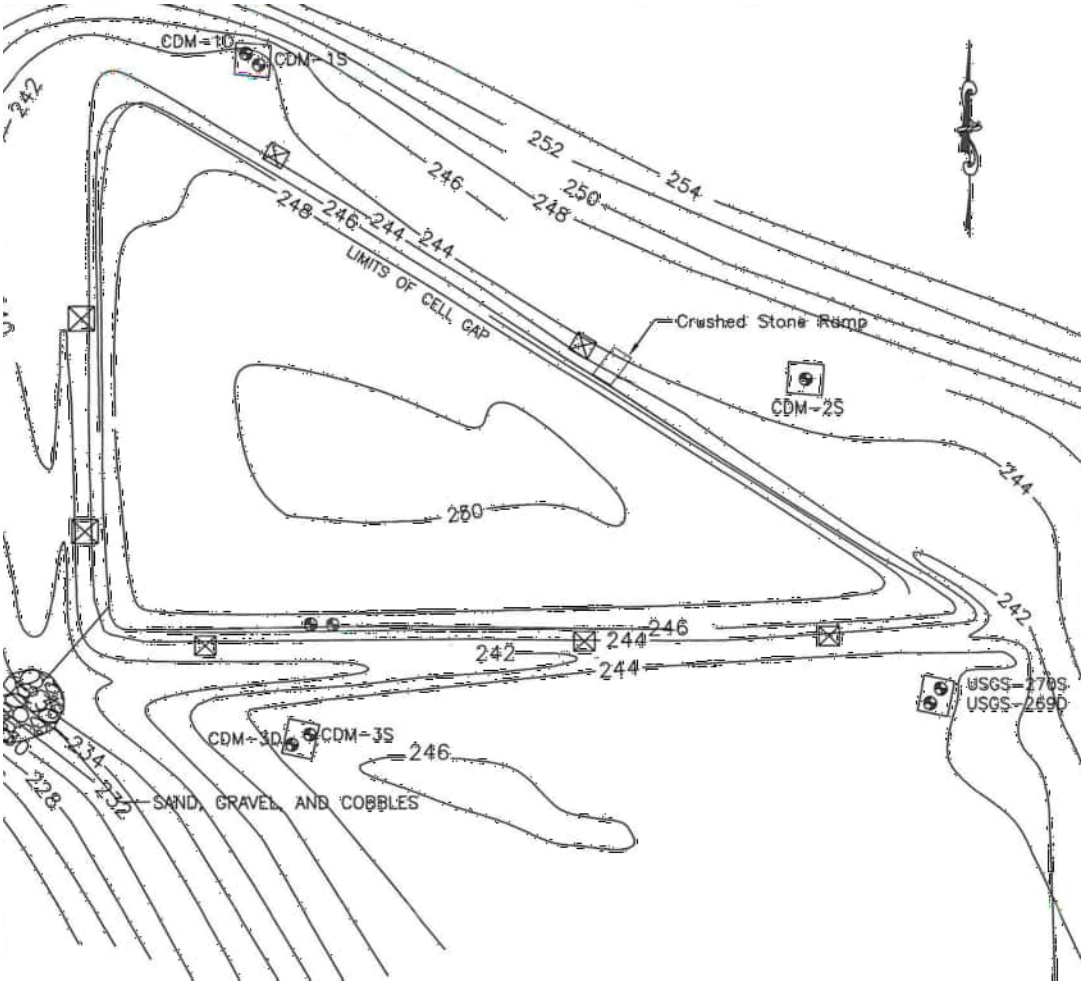
Weather Conditions: Sunny, 35°F

Reason for site visit: February Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | (A) | NA | |
| | | | |
| B. Cover | | | |
| 1.Integrity | (A) | NA | |
| 2. Elevation | (A) | NA | |
| 3. Vegetation | (A) | NA | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | (A) | NA | |
| 2. Flow Patterns | (A) | NA | |
| 3. Other | (A) | NA | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | (A) | NA | |
| 2. Locks/Keys | (A) | NA | |
| 3. General Condition | (A) | NA | |

A - Acceptable
NA - Not Acceptable

Inspection Notes: * Snow Covered




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
| | |
| | |
| | |
| | |
| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

March 18, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
March 2024

Dear Mr. Rogozinski:

On March 12, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and clear of vegetation. Most surfaces of the MHSL were dry; standing water was observed in the northeast swale. Overall conditions on the MHSL were good. The three corners of the cell did exhibit yellow grass. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis or Lauren DeHoyos of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
h:\bristol\mhsl\2024\march mhsl inspection letter.docx

WSP USA
6 Research Drive, Suite 260
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Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**MARCH 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**MARCH 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: L. DeHoyos

Date/Time: 3/12/24, 1000

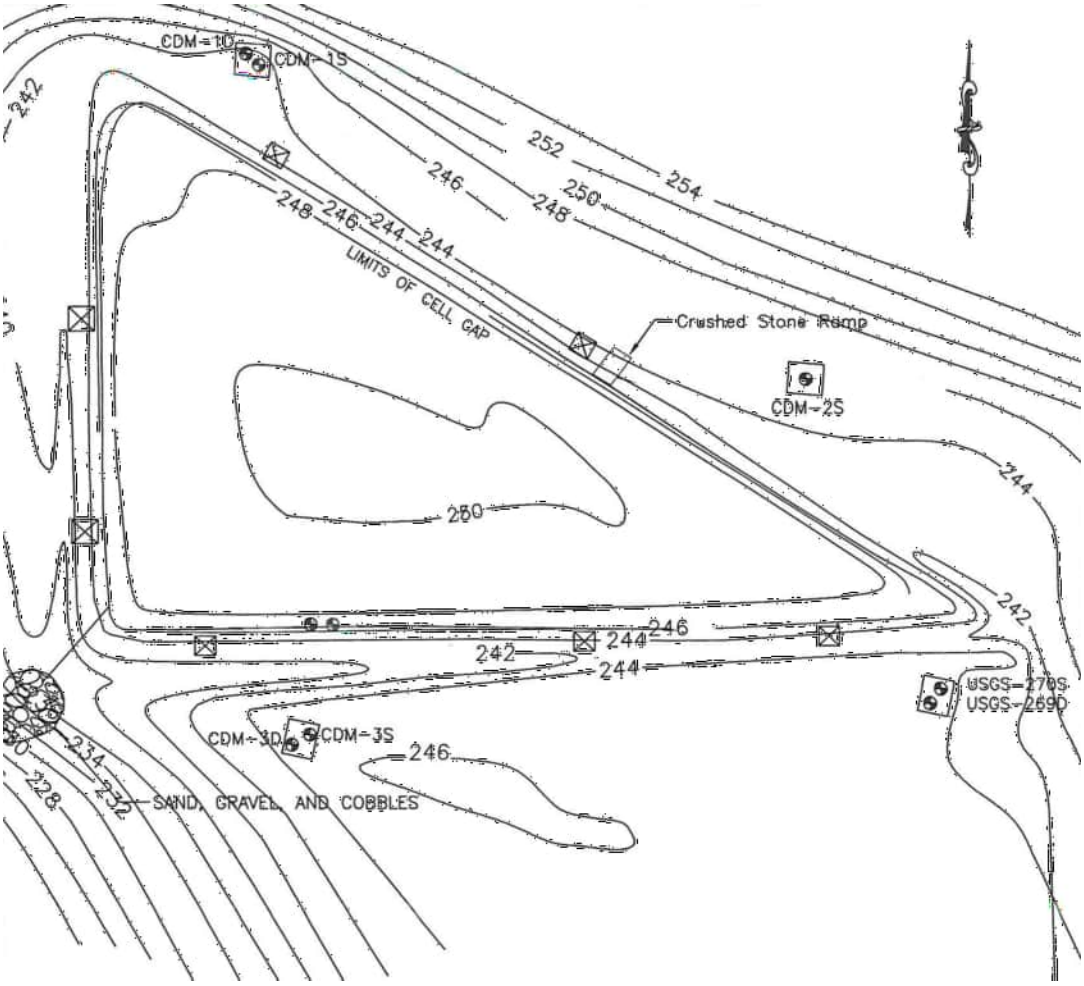
Weather Conditions: Sunny, 50°F

Reason for site visit: March MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | (A) | NA | |
| | | | |
| B. Cover | | | |
| 1.Integrity | (A) | NA | |
| 2. Elevation | (A) | NA | |
| 3. Vegetation | (A) | NA | * 3 corners of cell exhibit yellowing vegetation |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | (A) | NA | |
| 2. Flow Patterns | (A) | NA | |
| 3. Other | (A) | NA | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | (A) | NA | |
| 2. Locks/Keys | (A) | NA | |
| 3. General Condition | (A) | NA | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
| | |
| | |
| | |
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| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

May 6, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
April 2024

Dear Mr. Rogozinski:

On April 9, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and clear of vegetation. Most surfaces of the MHSL were dry; standing water was observed in the northeast swale. Overall conditions on the MHSL were good. The three corners of the cell did exhibit yellow grass. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis or Lauren DeHoyos of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
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wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**APRIL 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**APRIL 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: L.DeHoyos Date/Time: 4/9/2024, 1200-1300

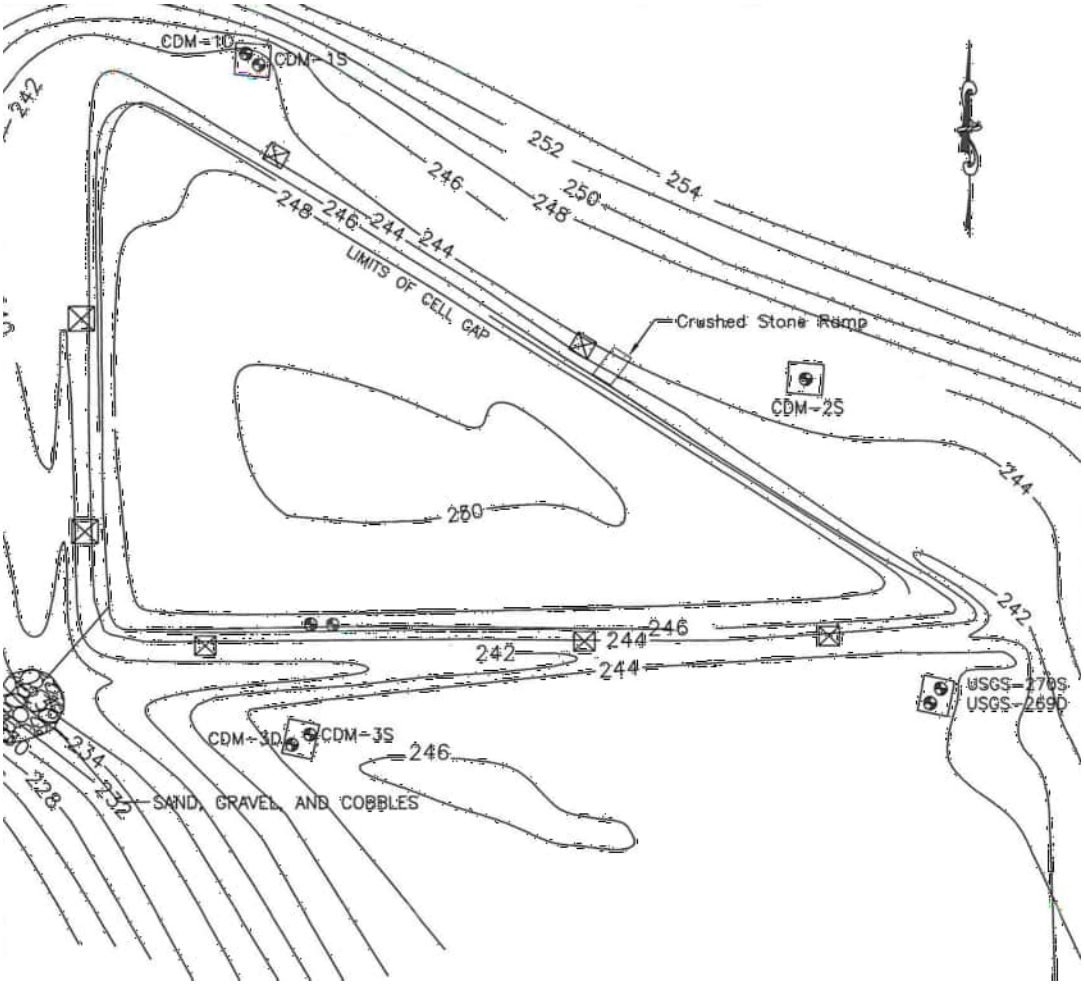
Weather Conditions: 68°F, Sunny

Reason for site visit: April Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

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0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
| | |
| | |
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| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

June 13, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
May 2024

Dear Mr. Rogozinski:

On May 2, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and clear of vegetation. Most surfaces of the MHSL were dry; standing water was observed in the northeast swale. Overall conditions on the MHSL were good. The three corners of the cell did exhibit yellow grass. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis or Lauren DeHoyos of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
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6 Research Drive, Suite 260
Shelton, CT 06484

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Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**MAY 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**MAY 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: L.DeHoyos Date/Time: 5/2/2024, 1100-1200

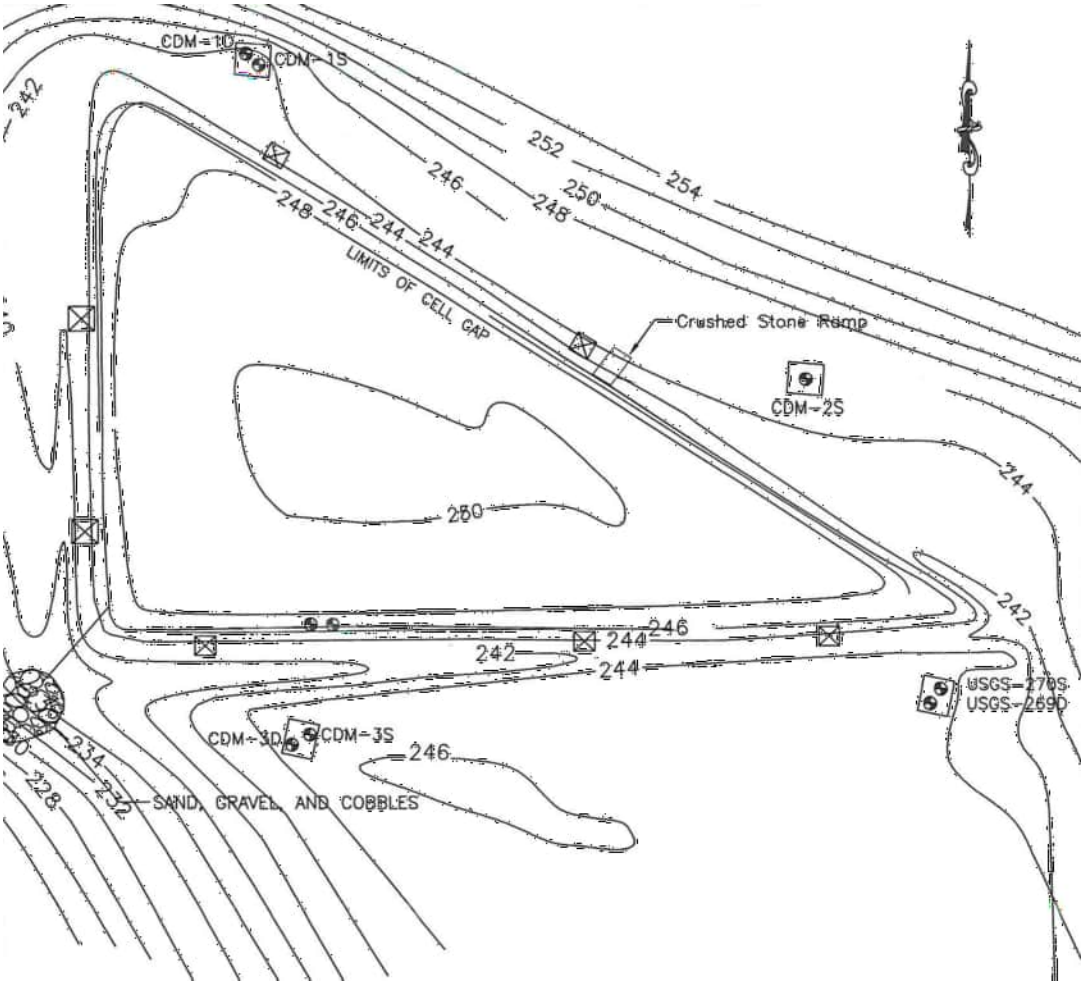
Weather Conditions: 76°F, Sunny

Reason for site visit: May Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
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PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

July 9, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
June 2024

Dear Mr. Rogozinski:

On June 11, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and mowing is ongoing to clear vegetation. Most surfaces of the MHSL were dry. Overall conditions on the MHSL were good. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis or Lauren DeHoyos of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
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Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**JUNE 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**JUNE 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: L.DeHoyos Date/Time: 6/11/2024, 1200-1300

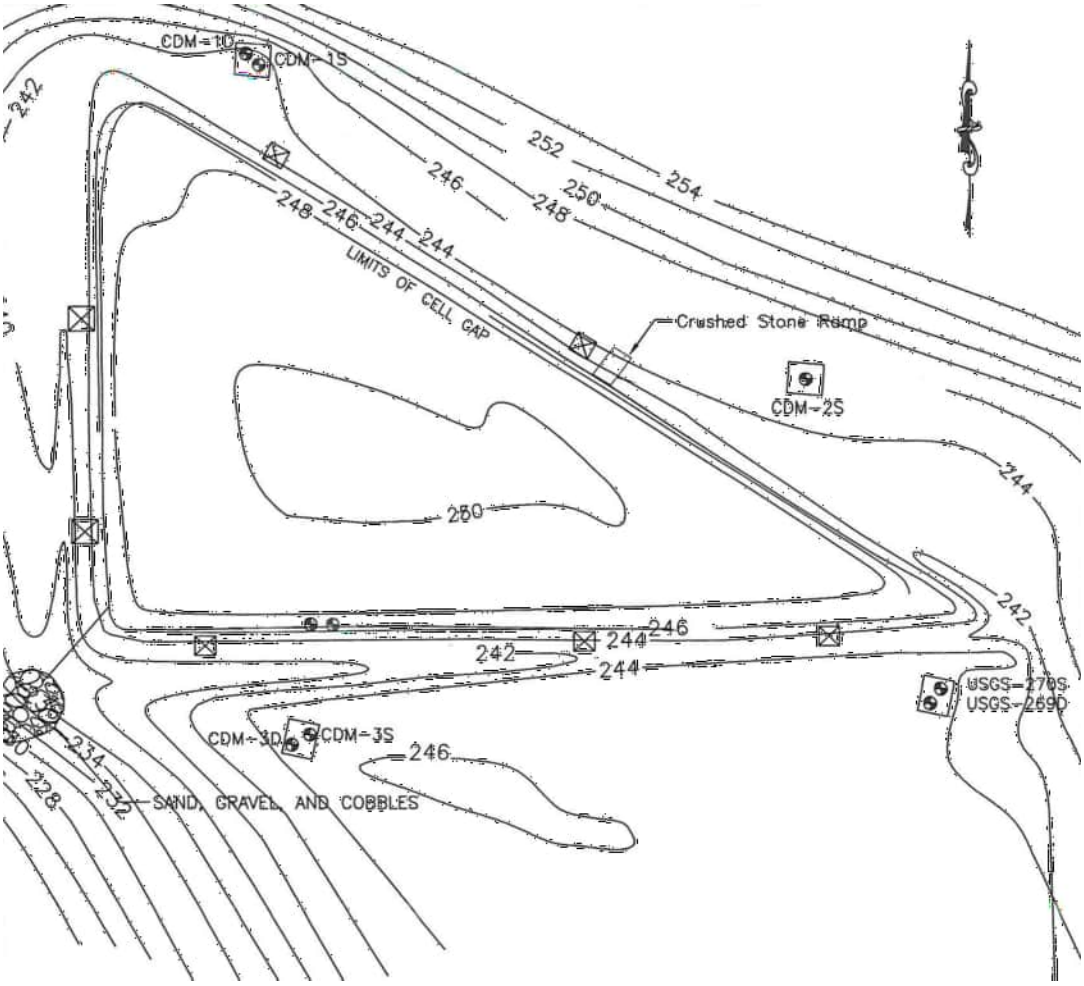
Weather Conditions: 72°F, cloudy

Reason for site visit: June Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | *mowing is ongoing to clear vegitation |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
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- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

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0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
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| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

August 7, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
July 2024

Dear Mr. Rogozinski:

On July 2, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

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If you have any questions concerning this inspection, please contact Karen Destefanis or Lauren DeHoyos of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
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wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**JULY 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**JULY 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest).**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: L .DeHoyos Date/Time: 7/2/2024, 1100-1200

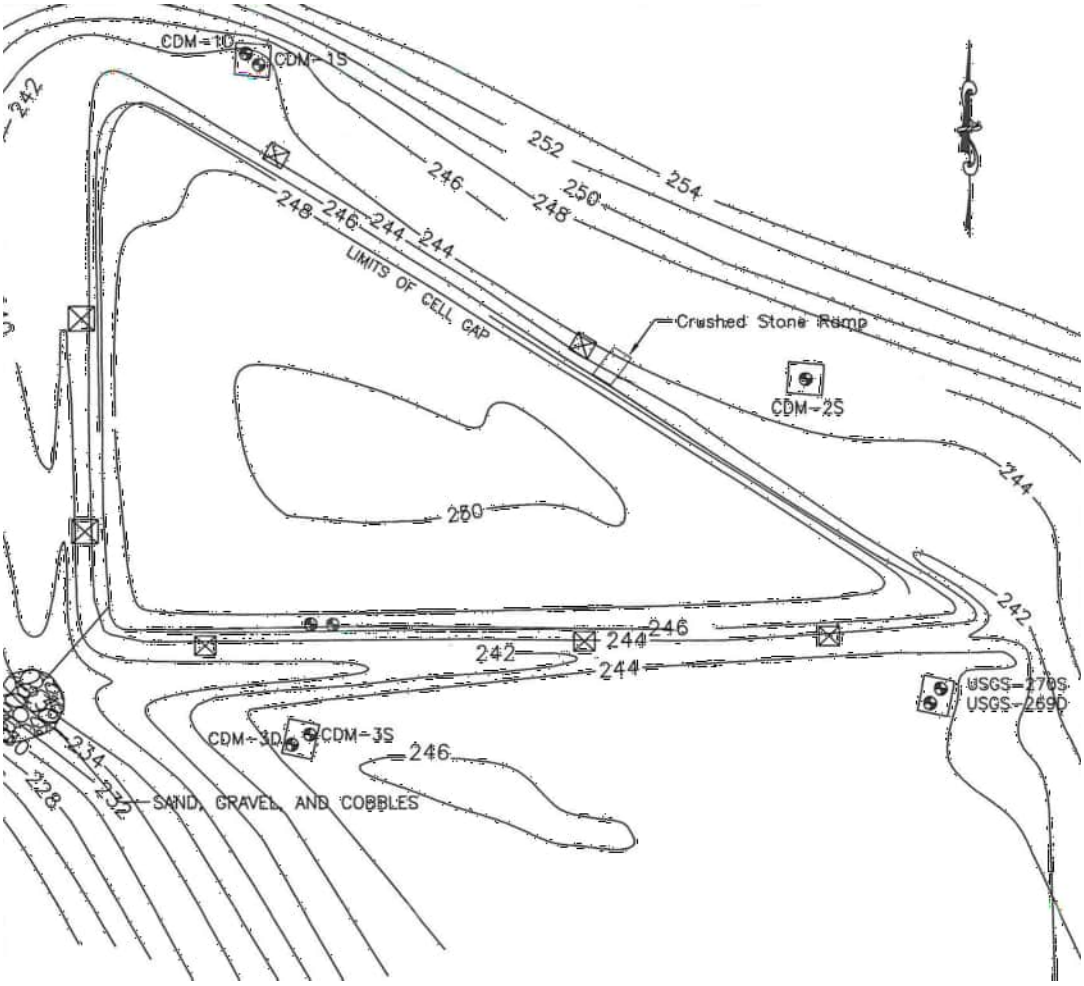
Weather Conditions: 73°F, sunny

Reason for site visit: July Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
| | |
| | |
| | |
| | |
| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

September 16, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
August 2024

Dear Mr. Rogozinski:

On August 5, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and clear of vegetation. Most surfaces of the MHSL were dry. Overall conditions on the MHSL were good. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis or Lauren DeHoyos of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
H:\Bristol\MHSL\2024\August MHSL inspection letter.docx

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**AUGUST 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**AUGUST 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: L.DeHoyos Date/Time: 8/5/2024, 0915-1015

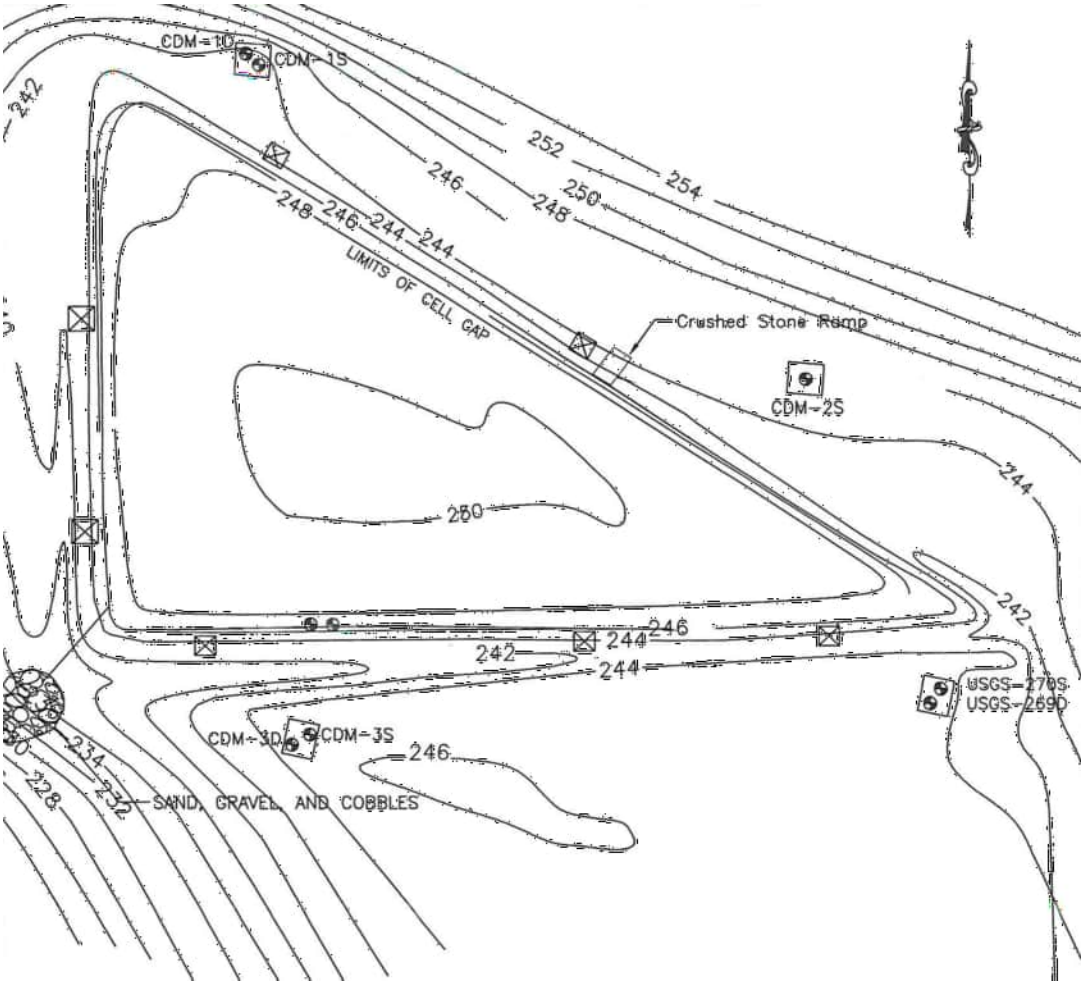
Weather Conditions: 81°F, sunny

Reason for site visit: August Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
| | |
| | |
| | |
| | |
| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

September 16, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
September 2024

Dear Mr. Rogozinski:

On September 10, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and clear of vegetation. Most surfaces of the MHSL were dry. Overall conditions on the MHSL were good. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
H:\Bristol\MHSL\2024\September MHSL inspection letter.docx

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**SEPTEMBER 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**SEPTEMBER 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: L.DeHoyos/ S.Philbrick Date/Time: 9/10/2024, 0915-1000

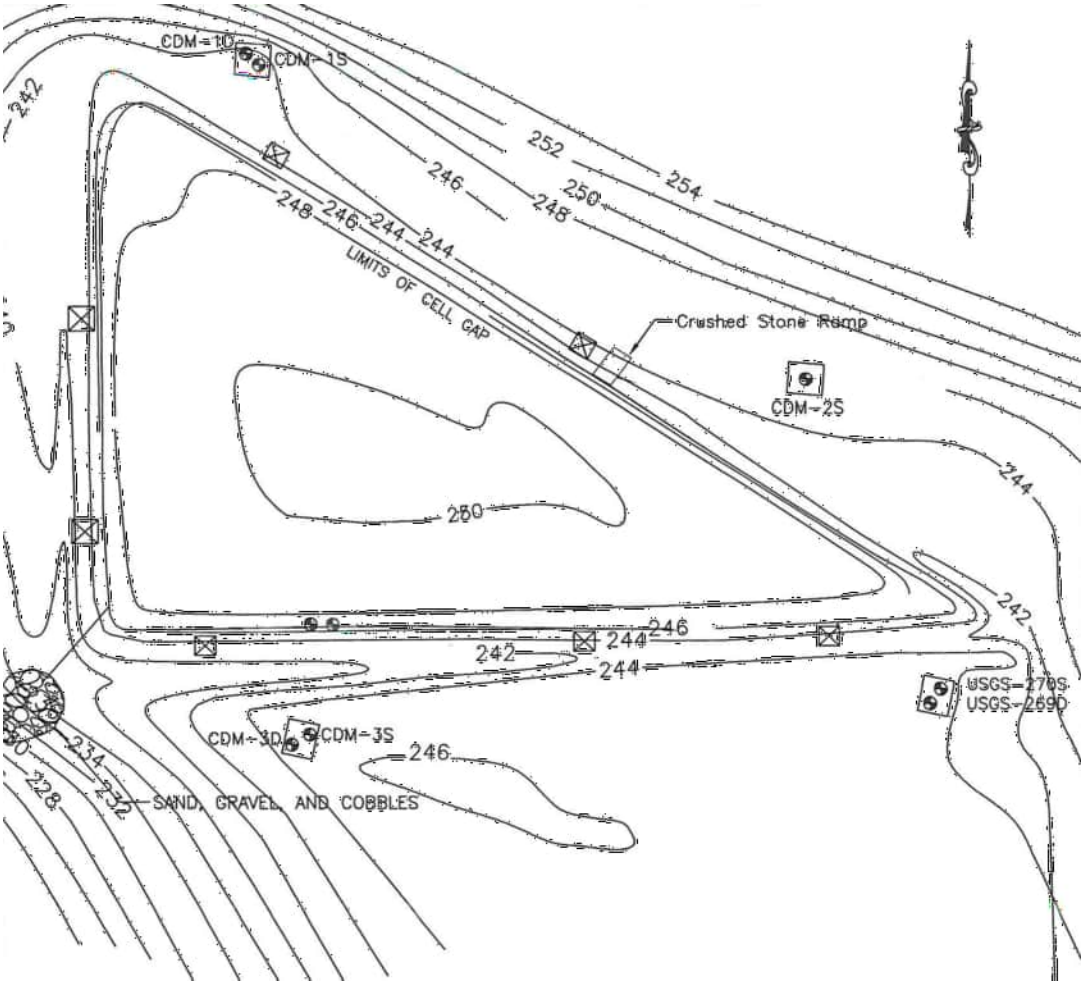
Weather Conditions: 81°F, sunny

Reason for site visit: September Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
| | |
| | |
| | |
| | |
| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

October 29, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
October 2024

Dear Mr. Rogozinski:

On October 24, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and clear of vegetation. All surfaces of the MHSL were dry. Overall conditions on the MHSL were good. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis of WSP at (203) 929-8555.

Kind regards,

WSP USA

Scott Philbrick
Associate Consultant, Geology

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
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WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**OCTOBER 2024**

**Photograph 1 – Cell (Facing Southeast)**

**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**OCTOBER 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: S.Philbrick Date/Time: 10/25/2024, 0915-1000

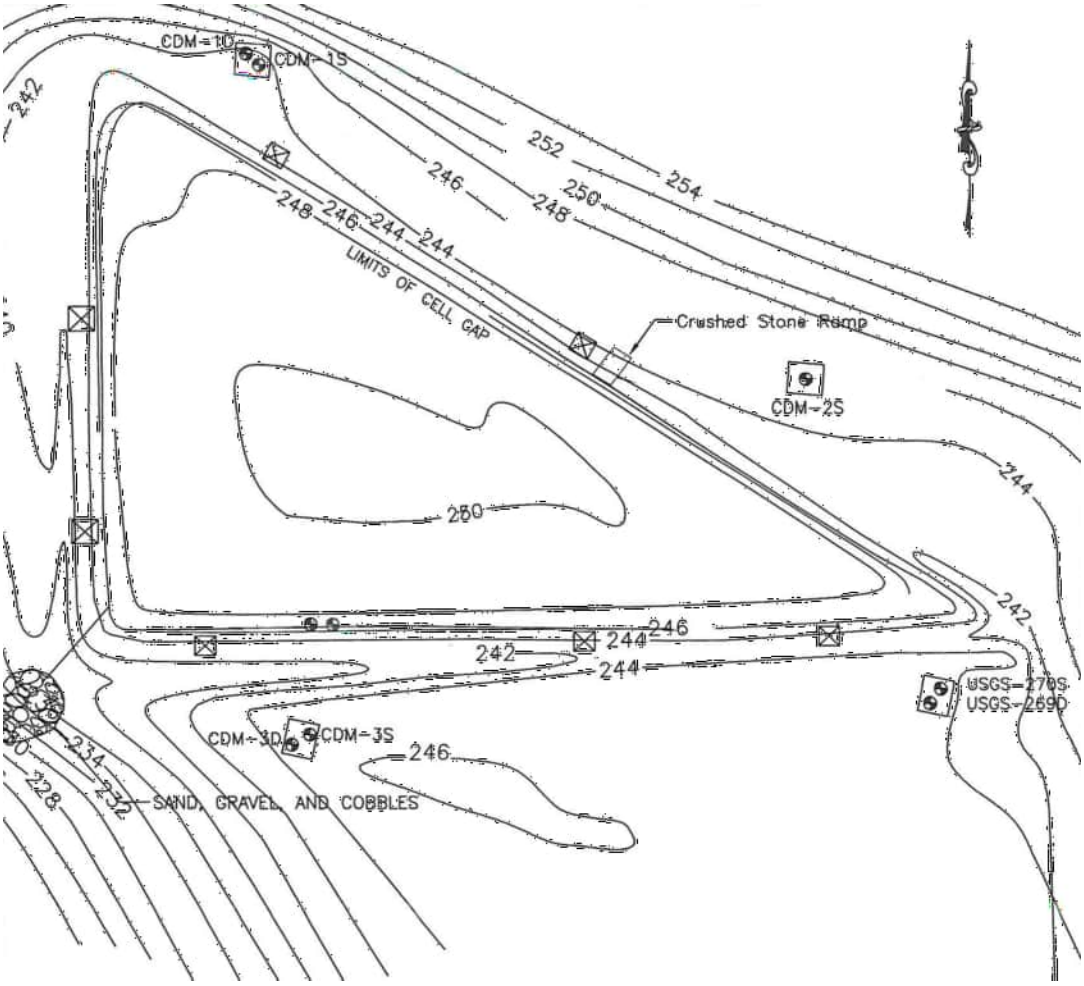
Weather Conditions: 64°F, sunny

Reason for site visit: October Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
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| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

November 18, 2024

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
November 2024

Dear Mr. Rogozinski:

On November 13, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

The general condition of the MHSL surface at the time of inspection was acceptable. Run-on/run-off controls were found in satisfactory conditions. The surface completions for all groundwater-monitoring wells located around the perimeter of the MHSL were found in good condition and secured with locks. Posted signs were legible and clear of vegetation. All surfaces of the MHSL were dry. Overall conditions on the MHSL were good. Photographs of the MHSL are attached.

The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis of WSP at (203) 929-8555.

Kind regards,

WSP USA

Scott Philbrick
Associate Consultant, Geology

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

Enclosures
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WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**NOVEMBER 2024**

**Photograph 1 – Cell (Facing Southeast)**


**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**NOVEMBER 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest)**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: S.Philbrick Date/Time: 11/13/2024, 0800-0900

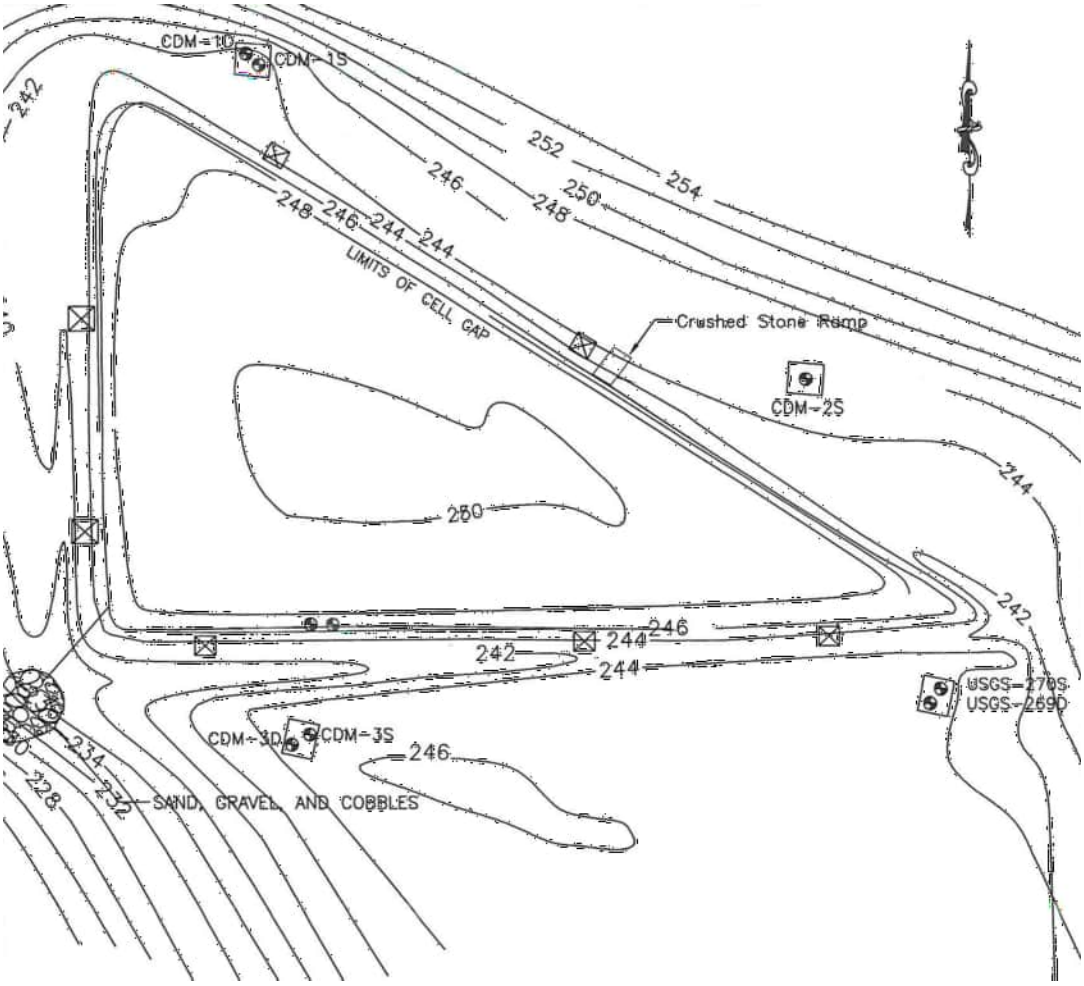
Weather Conditions: 41°F, sunny

Reason for site visit: November Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
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| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

January 2, 2025

Mr. Raymond Rogozinski, P.E.
Public Works Director
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Bristol Landfill
Monthly MHSL Inspection Report
December 2024

Dear Mr. Rogozinski:

On December 24, 2024, WSP USA (WSP) conducted the monthly inspection of the closed and capped metal hydroxide sludge landfill (MHSL) at the Bristol Landfill. This monthly inspection report was prepared as outlined in Section 4.2 of the MHSL Closure Report, Volume 1, prepared by Camp, Dresser & Mckee; revised November 8, 1985.

The MHSL inspection included checking for cracks, holes, areas of ponding, subsidence, uplifting, condition and abundance of vegetation, and other conditions that could allow excessive water to percolate into the landfill or erode the soil cover. Stormwater run-off/run-on structures and associated areas were checked for signs of erosion, obstructions and loss of rip-rap. Groundwater-monitoring wells located in the vicinity of the MHSL were inspected to verify that they remain secure and in working condition. Posted signs were inspected to ensure that they have not been defaced and are legible at a distance of 25 feet.

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The attached checklist identifies the landfill features that were inspected and associated notes and observations. Figure 1 shows the limits of the cell cap and locations of groundwater-monitoring wells, stormwater run-off/run-on structures and posted signs.

If you have any questions concerning this inspection, please contact Karen Destefanis of WSP at (203) 929-8555.

Kind regards,

WSP USA

Scott Philbrick
Associate Consultant, Geology

Reviewed by:

Karen Destefanis, CPG, LEP
Vice President, Geologist

Enclosures
H:\Bristol\MHSL\2024\December MHSL inspection letter.docx

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**DECEMBER 2024**

**Photograph 1 – Cell (Facing Southeast)**


**Photograph 2 – Cell (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**DECEMBER 2024**

**Photograph 3 – Cell and ramp access to top of cell (Facing Southwest).**

**INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT SLUDGE LANDFILL**

Inspector: S. Philbrick Date/Time: 12/24/2024, 0800-0900

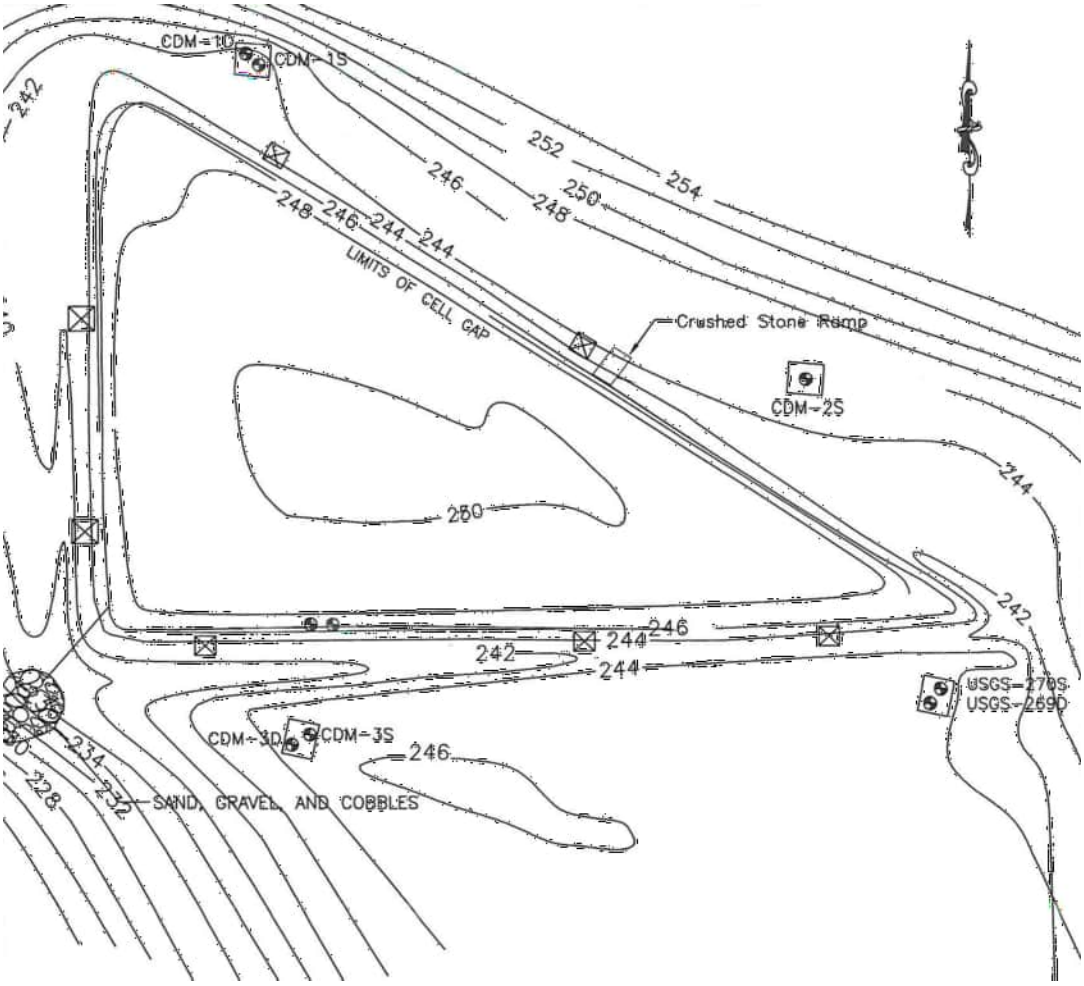
Weather Conditions: 26°F, Snow

Reason for site visit: December Monthly MHSL Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. Security System | | | |
| 1. Signs | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:




**Legend**

- Monitoring Well
- CDM-1S Well I.D.
- 244 – Surface Elev. Contour
- = Exposed Plastic in Soil
- = Light-Brown Grass
- = Rip-Rap
- = Sand, Gravel & Cobbles
- = Posted Sign
- = Standing Water

SOURCE: ECS, "CELL INSPECTION SITE PLAN", BRISTOL LANDFILL, BRISTOL, CONNECTICUT DATED JUNE 2014.

**General Notes:**

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

0 80

SCALE IN FEET

# CELL INSPECTION
# BRISTOL LANDFILL
# BRISTOL, CONNECTICUT

## CELL INSPECTION SITE PLAN

| DATE | REVISED |
|---|---|
| | |
| | |
| | |
| | |
| | |

PREPARED BY:

WSP USA
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

| DRAWN: | RAC | CHECKED: | AE | DATE: | 10/23/19 | FIGURE: | 1 |
|---|---|---|---|---|---|---|---|

# APPENDIX III

March 18, 2024

Mr. Raymond Rogozinski, P.E.
Department of Public Works
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Capped Landfill
Quarterly Inspection Report
January 2024 – March 2024

Dear Mr. Rogozinski:

On February 16, 2024, WSP USA (WSP) conducted the quarterly inspection of the City of Bristol capped solid waste landfill in Bristol, Connecticut (the Site) to identify any malfunctions, deterioration and discharges that may lead to a release of hazardous or solid wastes. Areas that were inspected include the Mixed Solid Waste Landfill and the Ash Residue Disposal Area (Figure 1). This quarterly inspection and report were completed to satisfy the requirements outlined in the Connecticut Department of Energy and Environmental Protection Bristol Landfill Stewardship Permit #DEEP/REM/SP/2023/10588.

The inspection included checking for odors and dust control; conditions of the access road; erosion, settling, subsidence or other events that may affect the grading; integrity of the final cover soils and vegetation; drainage controls; leachate seeps; and the condition of the groundwater-monitoring systems.

The condition of the Site was not acceptable at the time of the walkover. Drainage controls in the vicinity of the northern portion of the landfill appeared to be in poor condition with several swales containing general debris and ponding stormwater. A soil erosion cut approximately 6 inches to 2 feet in depth, black fabric component visible in some portions, was observed at the top of the landfill access road. Along the northern slope of the landfill there was visible evidence of erosion, settling and subsidence; possibly caused by uncontrolled stormwater runoff.

No odors or dust was observed. All access roads and access points around the Site were clear of debris, well maintained and easily passable, and posted signs were clear of vegetation and legible. Except where noted above the soil cover appeared to be intact with no excessive vegetation growth or areas of stressed vegetation. Groundwater-monitoring wells and their protective casings were in good condition.

The Quarterly Inspection Report Checklist and accompanying photographs are attached.

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

If you have any questions concerning this inspection, please contact Karen Destefanis or Lauren DeHoyos of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Reviewed by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

LD:cmm
Enclosures
h:\bristol\capped landfilled\2024\1q24 inspection report.docx

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**FEBRUARY 2024**

**Photograph 1 – Capped Landfill and MHSL (Facing Southeast)**

**Photograph 2 – Ash Residue Disposal Area and MHSL (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**FEBRUARY 2024**

**Photograph 3 – Landfill Access Road (Facing East). Evidence of soil erosion observed to the right of the photograph.**

**Photograph 4: Observed Soil Erosion (~6”-2’ deep) of cover soil possibly caused by uncontrolled stormwater runoff.**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**FEBRUARY 2024**

**Photograph 5: Image of land subsidence North slope of Landfill (Subsidence is noted along the North slope at multiple locations)**

**Photograph 6: Image of land subsidence North slope of Landfill (Subsidence is noted along the North slope at multiple locations)**

**QUARTERLY INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT CAPPED LANDFILL**

Inspector: L. DeHoyos Date/Time: 1145, 2/16/24

Weather Conditions: Sunny, 36°F

Reason for site visit: Q1 2024 cap inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. General | | | |
| 1. Signs | (A) | NA | |
| 2. Access Road | (A) | NA | |
| 3. Dust Control | (A) | NA | |
| 4. Odors | (A) | NA | |
| | | | |
| B. Cover | | | |
| 1.Integrity | A | (NA) | See notes below |
| 2. Elevation | A | (NA) | |
| 3. Vegetation | (A) | NA | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | A | (NA) | See notes below |
| 2. Flow Patterns | A | (NA) | |
| 3. Other | A | (NA) | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | (A) | NA | |
| 2. Locks/Keys | (A) | NA | |
| 3. General Condition | (A) | NA | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:

B 1 → 2: * land subsidence observed on northern slope @ multiple locations
* Soil erosion cut ~6" – 2' deep, black fabric visible in some portions

C 1 → 3 * See note above, believed to be caused by uncontrolled stormwater runoff
* ponding visible along access road.


LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- AREA OF LANDFILL
- ASH RESIDUE DISPOSAL AREA
- CLOSED METAL HYDROXIDE SLUDGE LANDFILL (MHSL)

NOTES:
LANDFILL SITE MAP BASED UPON FIELD MAPPING DIGITIZED FROM "SITE PLAN WITH METHANE MONITORING LOCATIONS", JULY 2004, ECS.
AERIAL; CTDEEP, CTECO MAPPING, 2012 ORTHOPHOTO, STATE PLANE NAD83.
ALL LOCATIONS, DIMENSIONS AND PROPERTY BOUNDARIES ARE APPROXIMATE. REFERENCE USE ONLY.

0 400
SCALE IN FEET

# CITY OF BRISTOL LANDFILL
# LAKE AVENUE
# BRISTOL, CONNECTICUT

## CAPPED LANDFILL SITE MAP

| DATE | REVISED |
|---|---|
| | |
| | |
| | |
| | |
| | |

PREPARED BY:

WSP USA
6 ReSerach Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

DRAWN: PAS | CHECKED: RG | DATE: 10/16/14 | FIGURE: 1

Document Path: C:\GIS_Projects\Bristol_Landfill\Maps\FIGURE 1 (CAPPED LANDFILL SITE MAP).mxd

June 13, 2024

Mr. Raymond Rogozinski, P.E.
Department of Public Works
City of Bristol
111 North Main Street
Bristol, CT 06010

RE: Capped Landfill – Quarterly Inspection Report
April 2024 – June 2024

Dear Mr. Rogozinski:

On May 2, 2024, WSP USA (WSP) conducted the quarterly inspection of the City of Bristol capped solid waste landfill in Bristol, Connecticut (the Site) to identify any malfunctions, deterioration and discharges that may lead to a release of hazardous or solid wastes. Areas that were inspected include the Mixed Solid Waste Landfill and the Ash Residue Disposal Area (Figure 1). This quarterly inspection and report was completed to satisfy the requirements outlined in the Connecticut Department of Energy and Environmental Protection Bristol Landfill Stewardship Permit #DEEP/REM/SP/2023/10588.

The inspection included checking for odors and dust control; conditions of the access road; erosion, settling, subsidence or other events that may affect the grading; integrity of the final cover soils and vegetation; drainage controls; leachate seeps; and the condition of the groundwater-monitoring systems.

The condition of the Site was not acceptable at the time of the walkover. A soil erosion cut approximately 6 in. to 2 ft. in depth, black fabric component visible in some portions, was observed at the top of the landfill access road.

No odors or dust was observed. All access roads and access points around the Site were clear of debris, well maintained and easily passable, and posted signs were clear of vegetation and legible. Except where noted above, the soil cover appeared to be intact with no excessive vegetation growth or areas of stressed vegetation. Groundwater-monitoring wells and their protective casings were in good condition. Along the northern slope of the landfill, repairs are ongoing to address multiple locations which have been previously identified to show visible evidence of erosion, settling and subsidence; possibly caused by uncontrolled stormwater runoff.

The Quarterly Inspection Report Checklist and accompanying photographs are attached.

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

If you have any questions concerning this inspection, please contact Lauren DeHoyos or Karen Destefanis of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Review by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

LD:cmm
Enclosures
H:\Bristol\Capped Landfilled\2024\2Q24 Inspection Report.docx

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**MAY 2024**

**Photograph 1: Capped Landfill and MHSL (facing southeast).**

**Photograph 2: Ash Residue Disposal Area and MHSL (facing southwest).**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**MAY 2024**

**Photograph 3: Landfill Access Road (facing east). Evidence of soil erosion observed to the right of the photograph.**

**Photograph 4: Observed Soil Erosion (~6”-2’ deep) of cover soil possibly caused by uncontrolled stormwater runoff.**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**MAY 2024**

**Photograph 5: Ongoing repairs on the north slope of landfill of land subsidence at multiple locations.**

**Photograph 6: Close up of ongoing repairs on the north slope of the landfill.**

**QUARTERLY INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT CAPPED LANDFILL**

Inspector: Lauren DeHoyos Date/Time: 5/2/2024 1200-1300

Weather Conditions: 76°F, Sunny

Reason for site visit: Q2 Cap Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. General | | | |
| 1. Signs | ✓ | | |
| 2. Access Road | ✓ | | |
| 3. Dust Control | ✓ | | |
| 4. Odors | ✓ | | |
| | | | |
| B. Cover | | | B1-B2: Soil Erosion cut, `6"- 2' deep, possible black component fabric visible, at top of landfill access road. Black organic rich runoff from leave stockpiles observed in erosion cut and swale running along access road |
| 1.Integrity | | ✓ | |
| 2. Elevation | | ✓ | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | | ✓ | C1-C3: see note above; believed to be caused by uncontrolled stormwater runoff. |
| 2. Flow Patterns | | ✓ | |
| 3. Other | | ✓ | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:


LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- AREA OF LANDFILL
- ASH RESIDUE DISPOSAL AREA
- CLOSED METAL HYDROXIDE SLUDGE LANDFILL (MHSL)

NOTES:
LANDFILL SITE MAP BASED UPON FIELD MAPPING DIGITIZED FROM "SITE PLAN WITH METHANE MONITORING LOCATIONS", JULY 2004, ECS.
AERIAL; CTDEEP, CTECO MAPPING, 2012 ORTHOPHOTO, STATE PLANE NAD83.
ALL LOCATIONS, DIMENSIONS AND PROPERTY BOUNDARIES ARE APPROXIMATE. REFERENCE USE ONLY.

0 400
SCALE IN FEET

# CITY OF BRISTOL LANDFILL
# LAKE AVENUE
# BRISTOL, CONNECTICUT

## CAPPED LANDFILL SITE MAP

| DATE | REVISED |
|---|---|
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PREPARED BY:

WSP USA
6 ReSerach Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

DRAWN: PAS | CHECKED: RG | DATE: 10/16/14 | FIGURE: 1

Document Path: C:\GIS_Projects\Bristol_Landfill\Maps\FIGURE 1 (CAPPED LANDFILL SITE MAP).mxd

September 16, 2024

Mr. Raymond Rogozinski, P.E.
Department of Public Works
City of Bristol
111 North Main Street
Bristol, CT 06010

***Via Electronic Transmission***

RE: Capped Landfill – Quarterly Inspection Report
July 2024 – September 2024

Dear Mr. Rogozinski:

On September 10, 2024, WSP USA (WSP) conducted the quarterly inspection of the City of Bristol capped solid waste landfill in Bristol, Connecticut (the Site) to identify any malfunctions, deterioration and discharges that may lead to a release of hazardous or solid wastes. Areas that were inspected include the Mixed Solid Waste Landfill and the Ash Residue Disposal Area (Figure 1). This quarterly inspection and report were completed to satisfy the requirements outlined in the Connecticut Department of Energy and Environmental Protection Bristol Landfill Stewardship Permit #DEEP/REM/SP/2023/10588.

The inspection included checking for odors and dust control; conditions of the access road; erosion, settling, subsidence or other events that may affect the grading; integrity of the final cover soils and vegetation; drainage controls; leachate seeps; and the condition of the groundwater-monitoring systems.

The condition of the Site was acceptable at the time of the walkover. No odors or dust was observed. All access roads and access points around the Site were clear of debris, well maintained and easily passable, and posted signs were clear of vegetation and legible. Except where noted above, the soil cover appeared to be intact with no excessive vegetation growth or areas of stressed vegetation. Groundwater-monitoring wells and their protective casings were in good condition. Ongoing repairs along the northern slope of the landfill, addressing multiple locations which have been previously identified to show visible evidence of erosion, settling and subsidence, have been completed.

The Quarterly Inspection Report Checklist and accompanying photographs are attached.

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

If you have any questions concerning this inspection, please contact Karen Destefanis of WSP at (203) 929-8555.

Kind regards,

WSP USA

Lauren DeHoyos
Project Hydrogeologist

Review by:

Karen Destefanis, CPG, LEP
Assistant Vice President, Geologist

LD:cmm
Enclosures
H:\Bristol\Capped Landfilled\2024\3Q24 Inspection Report.docx

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**SEPTEMBER 2024**

**Photograph 1 – Capped Landfill and MHSL (Facing Southeast).**

**Photograph 2 – Ash Residue Disposal Area and MHSL (Facing Southwest).**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**SEPTEMBER 2024**

**Photograph 3 – Landfill Access Road (Facing East). Evidence of soil erosion observed to the right of the photograph.**

**Photograph 4: Completed repair of observed soil erosion (~6”-2’ deep) of cover soil at the (facing east from landfill access road).**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**SEPTEMBER 2024**

**Photograph 5: Landfill Access Road (Facing East).**

**Photographs 6 and 7: Close up of completed repairs on the north slope of the landfill where multiple areas of subsidence have been historically observed.**

**QUARTERLY INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT CAPPED LANDFILL**

Inspector: L.DeHoyos/S.Philbrick Date/Time: 9/10/2024 1015-1115

Weather Conditions: 81°F, Sunny

Reason for site visit: Q3 Cap Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. General | | | |
| 1. Signs | ✓ | | |
| 2. Access Road | ✓ | | |
| 3. Dust Control | ✓ | | |
| 4. Odors | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:


LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- AREA OF LANDFILL
- ASH RESIDUE DISPOSAL AREA
- CLOSED METAL HYDROXIDE SLUDGE LANDFILL (MHSL)

NOTES:
LANDFILL SITE MAP BASED UPON FIELD MAPPING DIGITIZED FROM "SITE PLAN WITH METHANE MONITORING LOCATIONS", JULY 2004, ECS.
AERIAL; CTDEEP, CTECO MAPPING, 2012 ORTHOPHOTO, STATE PLANE NAD83.
ALL LOCATIONS, DIMENSIONS AND PROPERTY BOUNDARIES ARE APPROXIMATE. REFERENCE USE ONLY.

0 400
SCALE IN FEET

# CITY OF BRISTOL LANDFILL
# LAKE AVENUE
# BRISTOL, CONNECTICUT

## CAPPED LANDFILL SITE MAP

| DATE | REVISED |
|---|---|
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| | |

PREPARED BY:

WSP USA
6 ReSerach Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

DRAWN: PAS | CHECKED: RG | DATE: 10/16/14 | FIGURE: 1

Document Path: C:\GIS_Projects\Bristol_Landfill\Maps\FIGURE 1 (CAPPED LANDFILL SITE MAP).mxd

February 28, 2025

Mr. Raymond Rogozinski, P.E.
Department of Public Works
City of Bristol
111 North Main Street
Bristol, CT 06010

***Via Electronic Transmission***

RE: Capped Landfill – Quarterly Inspection Report
October 2024 – December 2024

Dear Mr. Rogozinski:

On October 24, 2024, WSP USA (WSP) conducted the quarterly inspection of the City of Bristol capped solid waste landfill in Bristol, Connecticut (the Site) to identify any malfunctions, deterioration and discharges that may lead to a release of hazardous or solid wastes. Areas that were inspected include the Mixed Solid Waste Landfill and the Ash Residue Disposal Area (Figure 1). This quarterly inspection and report were completed to satisfy the requirements outlined in the Connecticut Department of Energy and Environmental Protection Bristol Landfill Stewardship Permit #DEEP/REM/SP/2023/10588.

The inspection included checking for odors and dust control; conditions of the access road; erosion, settling, subsidence or other events that may affect the grading; integrity of the final cover soils and vegetation; drainage controls; leachate seeps; and the condition of the groundwater-monitoring systems.

The condition of the Site was acceptable at the time of the walkover. No odors or dust was observed. All access roads and access points around the Site were clear of debris, well maintained and easily passable, and posted signs were clear of vegetation and legible. Except where noted above, the soil cover appeared to be intact with no excessive vegetation growth or areas of stressed vegetation. Groundwater-monitoring wells and their protective casings were in good condition.

The Quarterly Inspection Report Checklist and accompanying photographs are attached.

If you have any questions concerning this inspection, please contact Karen Destefanis of WSP at (203) 929-8555.

Kind regards,

WSP USA

Scott Philbrick
Associate Consultant, Geologist

Review by:

Karen Destefanis, CPG, LEP
Vice President, Geologist

H:\Bristol\Capped Landfilled\2024\4Q24 Inspection Report.docx

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**OCTOBER 2024**

**Photograph 1 – Capped Landfill and MHSL (Facing Southeast)**

**Photograph 2 – Ash Residue Disposal Area and MHSL (Facing Southwest)**

**SITE PHOTOGRAPHS**
**BRISTOL LANDFILL**
**BRISTOL, CONNECTICUT**
**OCTOBER 2024**

**Photograph 3: Landfill Access Road (Facing East).**

**QUARTERLY INSPECTION REPORT CHECKLIST**

**BRISTOL CONNECTICUT CAPPED LANDFILL**

Inspector: S. Philbrick Date/Time: 10/24/2024 1015-1115

Weather Conditions: 71°F, Sunny

Reason for site visit: Q4 Cap Inspection

| FEATURE | STATUS (circle one) | | REASON FOR NA STATUS, IF ANY |
|---|---|---|---|
| | Acceptable | Non-Acceptable | |
| A. General | | | |
| 1. Signs | ✓ | | |
| 2. Access Road | ✓ | | |
| 3. Dust Control | ✓ | | |
| 4. Odors | ✓ | | |
| | | | |
| B. Cover | | | |
| 1.Integrity | ✓ | | |
| 2. Elevation | ✓ | | |
| 3. Vegetation | ✓ | | |
| | | | |
| C. Run-on/Run-off | | | |
| 1. Integrity | ✓ | | |
| 2. Flow Patterns | ✓ | | |
| 3. Other | ✓ | | |
| | | | |
| D. Monitoring Wells | | | |
| 1. Caps | ✓ | | |
| 2. Locks/Keys | ✓ | | |
| 3. General Condition | ✓ | | |

A - Acceptable
NA - Not Acceptable

Inspection Notes:


LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- AREA OF LANDFILL
- ASH RESIDUE DISPOSAL AREA
- CLOSED METAL HYDROXIDE SLUDGE LANDFILL (MHSL)

NOTES:
LANDFILL SITE MAP BASED UPON FIELD MAPPING DIGITIZED FROM "SITE PLAN WITH METHANE MONITORING LOCATIONS", JULY 2004, ECS.
AERIAL; CTDEEP, CTECO MAPPING, 2012 ORTHOPHOTO, STATE PLANE NAD83.
ALL LOCATIONS, DIMENSIONS AND PROPERTY BOUNDARIES ARE APPROXIMATE. REFERENCE USE ONLY.

0 400
SCALE IN FEET

# CITY OF BRISTOL LANDFILL
# LAKE AVENUE
# BRISTOL, CONNECTICUT

## CAPPED LANDFILL SITE MAP

| DATE | REVISED |
|---|---|
| | |
| | |
| | |
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| | |

PREPARED BY:

WSP USA
6 ReSerach Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

DRAWN: PAS | CHECKED: RG | DATE: 10/16/14 | FIGURE: 1

Document Path: C:\GIS_Projects\Bristol_Landfill\Maps\FIGURE 1 (CAPPED LANDFILL SITE MAP).mxd

# APPENDIX IV

# APPROVAL

Raymond A Rogozinski, P.E.
Director of Public Works
City of Bristol
111 North Main Street
Bristol, CT 06010

March 25, 2024
*Sent electronically*

Email: RaymondRogozinski@bristolct.gov

RE: Revised Water Quality Monitoring Plan
Bristol Landfill
Lake Avenue, Bristol
Stewardship Permit No. DEEP/REM/SP/2023-10588
EPA ID No. CTD000790725
Rem ID No. 10588

Dear Raymond Rogozinski:

The Remediation Division of the Connecticut Department of Energy and Environmental Protection (the Department) has reviewed the report titled "Revised Water Quality Monitoring Plan", dated March 2024, received on March 21, 2024 (the Plan). The Plan was prepared on your behalf by WSP USA (WSP). The Plan was submitted in conjunction with Stewardship Permit No. DEEP/REM/SP/2023-10588 pursuant to Section 22a-6, 22a-449(c), 22a-454 of the Connecticut General Statutes and Section 22a-209 and 22a-449(c)-110 of the Regulations of Connecticut State Agencies.

The Plan incorporates the approved 2017 Revised Water Quality Monitoring Plan, the approved 1995 Resource Conservation and Recovery Act (RCRA) Water Quality Monitoring Plan, the 2010 Groundwater Monitoring Plan proposed in the Supplemental Leachate Impact Assessment Report dated June 2010, the results of Supplemental Investigation dated March 2019, and the results of the potable water sampling program in the Grannis Pond area and Churchill Street area. The Plan includes sampling twenty-seven (27) groundwater monitoring wells, three (3) surface water locations, six (6) potable wells in the Grannis Pond area, and two (2) potable wells in the Churchill Street area on an annual or a 15-month basis. The Plan also modified the sampling parameters based on the 30 years monitoring data.

The above referenced monitoring plan is hereby approved.

The next deliverable due from you is the Annual Water Quality Monitoring Report and it is due on or before June 1, 2024.

Nothing in this approval shall affect the Commissioner's authority to institute any proceeding, or take any action to prevent or abate pollution, to recover costs and natural resource damages, and to impose penalties for violations of law. If at any time the Commissioner determines that the approved actions have not fully characterized the extent and degree of pollution or have not successfully abated or

prevented pollution, the Commissioner may institute any proceeding, or take any action to require further investigation or further action to prevent or abate pollution. This approval relates only to pollution or contamination identified in the above referenced proposal.

In addition, nothing in this approval shall relieve any person of his or her obligations under applicable federal, state, and local law.

If you have any questions pertaining to this matter, please contact Jing Chen of my staff at (860) 424-3391.

Sincerely,

Raymond Frigon
Director
Remediation Division
Bureau of Water Protection and Land Reuse

RF:JC

e-copy:
Karen Destefanis, CPG, LEP, Karen.Destefanis@wsp.com
Michael Manolakas, Michael.Manolakas@wsp.com

# APPROVAL

Sent electronically to: RaymondRogozinski@bristolct.gov

Raymond A Rogozinski, P.E.
Director of Public Works
City of Bristol
111 North Main Street
Bristol, CT 06010

July 18, 2024

RE: Per- and Polyfluoroalkyl Substances Baseline Monitoring Plan &
Public Participation Plan
Bristol Landfill, Lake Avenue, Bristol
Stewardship Permit No. DEEP/REM/SP/2023-10588
EPA ID No. CTD000790725
Rem ID No. 10588

Dear Raymond Rogozinski:

The Remediation Division of the Bureau of Water Protection and Land Reuse of the State of Connecticut Department of Energy and Environmental Protection (the Department) has reviewed the reports titled "Per- and Polyfluoroalkyl Substances Baseline Monitoring Plan", dated June 2024, received on June 21, 2024 (the PFAS Work Plan) and “Public Participation Plan”, dated April 24, received on April 29, 2024 (PPP). Both Plans were prepared on your behalf by WSP USA (WSP). The Plans were submitted in conjunction with Stewardship Permit No. DEEP/REM/SP/2023-10588 pursuant to Section 22a-6, 22a-449(c), 22a-454 of the Connecticut General Statutes and Section 22a-209 and 22a-449(c)-110 of the Regulations of Connecticut State Agencies.

The PFAS Work Plan proposes to conduct a baseline sampling of 11 selected groundwater monitoring wells at the Bristol Landfill site and two (2) surface water locations near the site. Analysis for per- and polyfluorinated alkyl substances (PFAS) will be conducted using EPA Method 1633.

The PPP outlines the procedures for providing information to the public for any incoming remediation work and corrective actions at the landfill.

The above referenced PPP and PFAS Work Plan are hereby approved.

The next deliverable due from you is the Annual Report and it is due on or before March 1, 2025.

Nothing in this approval shall affect the Commissioner's authority to institute any proceeding, or take any action to prevent or abate pollution, to recover costs and natural resource damages, and to impose penalties for violations of law. If at any time the Commissioner determines that the approved actions have not fully characterized the extent and degree of pollution or have not successfully abated or prevented pollution, the Commissioner may institute any proceeding, or take any action to require further

investigation or further action to prevent or abate pollution. This approval relates only to pollution or contamination identified in the above referenced proposal.

In addition, nothing in this approval shall relieve any person of his or her obligations under applicable federal, state, and local law.

If you have any questions pertaining to this matter, please contact Jing Chen of my staff at (860) 424-3391.

Sincerely,

Raymond Frigon
Director
Remediation Division
Bureau of Water Protection and Land Reuse

RF:JC

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