Limited Site Investigation

City of Tucson (COT) Container Maintenance Compound (CMC)

(APNs 118-20-0374A, 118-20-0076A and 118-20-0750)

1402 South 10th Avenue

Tucson, Pima County, AZ

July 18, 2023 | Terracon Project No. 63227145A

Prepared for:
City of Tucson Environmental & General Services
4004 South Park Avenue, Building 1
Tucson, AZ 85726

355 South Euclid Avenue, Ste 107
Tucson, AZ 85719-6654
P 520-770-1789
F 520-792-2539
Terracon.com

City of Tucson Environmental & General Services
4004 South Park Avenue, Building 1
Tucson, AZ 85726

Attn: Mr. Frank Bonillas
P: (520) 837-3814
E: Frank.Bonillas@tucsonaz.gov

Re: Limited Site Investigation
City of Tucson Container Maintenance Compound
Tucson, Pima County, Arizona 85713
Terracon Project No. 63227145A

Dear Mr. Bonillas,

Terracon Consultants, Inc. (Terracon) is pleased to submit our report of Limited Site Investigation (LSI) activities completed at the site referenced above. Terracon conducted the LSI in general accordance with our proposal P63227145A dated February 24, 2023.

Terracon appreciates this opportunity to provide environmental consulting services to City of Tucson. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.

Breana Quesada

Breana Quesada
Assistant Scientist

Jared C. Geissler, P.E.
Authorized Project Reviewer
Senior Associate

Executive Summary

This LSI was performed in general accordance with the scope of services outlined in the Terracon Consultants, Inc. (Terracon) Proposal No. P63227145A dated February 24, 2023. Terracon personnel advanced a total of six soil borings and installed one sub-surface soil vapor probe at the site to evaluate potential releases associated with the identified recognized environmental conditions (RECs) in the Terracon Phase I Environmental Site Assessment (ESA – Report No. 63227145) dated December 27, 2022. Soil and subsurface soil vapor samples were collected and analyzed in accordance with the procedures outlined in Section 3.

A summary of our "Findings, Conclusions, and Recommendations" is provided below. It should be recognized that details of the LSI were not included or fully developed in these sections, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

Findings

The lithology encountered at the site generally consisted of silty sands and clays. In the vicinity of the former UST basin, silty, sandy clay was encountered. PID readings ranging from 0.1 parts per million (ppm) to 1.1 ppm were measured in soil samples collected during the advancement of the borings. The field screening results are presented on the boring logs found in Appendix C. The PID reading from the soil vapor well prior to sampling was 49.3 ppm.

The soil sample analytical results provided by the laboratory were compared to the current (March 2009) ADEQ residential soil remediation levels (SRLs) [rSRLs], non-residential SRLs (nrSRLs), and ADEQ Minimum Groundwater Protection Levels (GPLs – September 1996). The following is a summary of the soil sample results:

- Arsenic, barium, chromium, and lead were detected in the soil samples SS-4-4, SS-5-4, and SS-6-4. The reported concentrations were below the rSRLs, nRSLs, and GPLs.

- Volatile organic compounds and tentatively identified compounds (VOCs +TICs), polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) were not reported above laboratory detection limits (RDLs).

The soil vapor sample analytical results provided by the laboratory were compared to the Environmental Protection Agency (EPA)'s recommended default values used within the Vapor Intrusion Screen Calculator (VISL) which considers a target risk for carcinogens (TCR) of 10^{-6} and a target hazard quotient for non-carcinogens (THQ) of 0.1 for residential and commercial receptors. The VISL Calculator results are presented in Appendix E. The following is a summary of the soil vapor sample results:

- Benzene, chloroethane, isopropylbenzene, toluene, 1,2,4-trimethylbenezene, M & P-xylene and O-xylene were detected above RDLs in sample SG-1 but measured concentrations were below respective EPA residential and commercial VISLs.

Conclusions

Based on the scope of services described in this report and subject to the limitations described herein, Terracon concludes the following:

- The laboratory results of the soil samples submitted for analysis indicated soils did not contain analytes at concentrations above established ADEQ SRLs or Minimum GPLs. A copy of the analytical report and chain of custody are included in Appendix D.

- The laboratory results of the soil vapor sample submitted for analysis did not contain analytes at concentrations above respective EPA residential and commercial VISLs. A copy of the analytical report and chain of custody are included in Appendix D.

Recommendations

Further Investigation Not Recommended

The scope of the LSI was intended to assess the presence/absence of environmental impacts based upon historical site information and current site operations identified in Terracon's Phase 1 ESA. The scope was limited to that presented in the proposal and as such was not intended to address the magnitude or extent of environmental impacts. Soil vapor data are subject to seasonal variability associated with environmental conditions and the effects of overlying buildings. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations, or exploratory services. The data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

Based on review of the analytical results from soil vapor samples collected during this LSI, the site does not appear to be affected by a release of chemicals of concern at concentrations exceeding applicable Action Levels or risk-based screening criteria. Therefore, further investigation or action is not recommended at this time.

Based on the history of the site, Terracon recommends that a Soil Management Plan be developed and referenced in the event that indications of soil contamination and/or non-native subsurface features (e.g., septic system) are identified during earthwork and development in areas not already identified as RECs.

Table of Contents

Appendices

Limited Site Investigation

City of Tucson (COT) Container Maintenance Compound (CMC)
(APNs 118-20-0374A, 118-20-0076A and 118-20-0750)
1402 South 10th Avenue
Tucson, Pima County, AZ
June 29, 2023

Site Description and Background Information

Site Name	City of Tucson Container Maintenance Compound		
Site Address	(APNs 118-20-0374A, 118-20-0076A and 118-20-0750) 1402 South 10th Avenue		
Site Description	118-20-037A	1402 S. 10th Avenue	Parcel consists of two non-contiguous areas separated by the Downtown Airport Wash. The north portion is developed with a 1,617 square-foot structure (currently vacant) and the south portion is developed with an office trailer.
	118-20-076A	1445 S. 11th Avenue	Two interconnected buildings collectively covering 3,569 square-feet and containing a wash-bay, welding shop, maintenance area, paint booth, and office area.
	118-20-0750	No assigned address	An aboveground storage tank (AST), fuel dispenser, and auxiliary equipment shed.

A Topographic Map showing the site location is included as Exhibit 1 and a Site Diagram indicating the sample locations is included as Exhibit 2 in Appendix A.

1.1 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, express or implied, regarding the findings, conclusions, or recommendations. Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not intended to be in strict conformance with ASTM E1903-19.

1.2 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable,

nondetectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Soil vapor data are subject to seasonal variability associated with environmental conditions and the effects of overlying buildings. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations, or exploratory services. The data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.3 Reliance

This report has been prepared for the exclusive use of City of Tucson and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of City of Tucson and Terracon. Any unauthorized distribution or reuse is at City of Tucson sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, LSI report, and Terracon's Agreement for Services. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to City of Tucson and all relying parties unless otherwise agreed in writing.

Scope of Services

This LSI was undertaken in response to the results of our Phase I ESA (ESA – Report No. 63227145) dated December 27, 2022, which identified the following RECs:

ESA REC No. 1	During site reconnaissance a former hydraulic lift and/or trench drain was observed. Due to the potential of subsurface soil impacts, these features are considered RECs to the site.
ESA REC No. 2	A review of current regulatory database and ADEQ records identified City of Tucson (ADEQ UST Facility ID 0-005177) as an UST facility. Based on a review of prior reports and ADEQ records, the subsurface soil investigations associated with the historic UST operation and closed LUST cases, only included analysis for total petroleum hydrocarbons (TPHs) and does not meet current ADEQ protocol. As such, the former UST system and associate LUST cases represents a REC to the site.
ESA VEC No. 1	The potential for a vapor encroachment condition (VEC) exists at the site, based on LUST files 4540.01, 4540.02, 4540.03, and 4540.04 associated with a former diesel UST, were opened in August 1996 and closed in November 1996 to closed soil only levels meeting Risked Based Corrective Action (RBCA) Tier 1 standards.

The objective of the LSI was to evaluate the presence of chemicals of concern associated with the RECs identified by the Phase I ESA and areas of environmental concern noted in the Phase 1 ESA. The scope of services was not intended to identify every chemical possibly associated with the site. The proposed scope was not intended to determine the extent or magnitude of any existing release. Additionally, contaminant concentrations detected in samples collected during the LSI are not necessarily representative of average or maximum concentrations over the entire site.

This LSI report presents data from field activities that included the advancement of borings for the collection and analysis of soil and soil vapor samples for chemical analysis. The activities were conducted to assess potential impacts to environmental media from historical uses of the site and adjoining properties. The sampling and analytical program is outlined below.

SAMPLING AND ANALYTICAL PROGRAM

Sampling Description	Borings *Max Depth*	Samples Collected	Samples to Analyze Initially	Analysis
Purpose: To assess potential impacts from the former hydraulic lift and/or trench drain at the site.				
Two soil borings advanced to a depth of 5 feet bgs at each end of the apparent trench drain. Collect samples at 5 feet below ground surface (bgs). One soil boring advanced to a depth of 10 feet bgs near the center of the apparent former hydraulic lift and/or trench drain. Collect samples at 5 and 10 feet bgs.	2 Borings *4 feet bgs* 1 boring *8 feet bgs*	4	4	PAHs VOCs RCRA 8 Metals PCBs
Purpose: To assess potential soil impacts from the former UST system.				
Two soil borings advanced to a depth of 5 feet bgs in the vicinity of each former UST dispensers. Collect samples at 5 feet bgs. One soil boring advanced to a depth of 25 feet bgs within the former location of the diesel UST. Collect samples at 5, 10, 15, 20, and 25 feet bgs. Two soil samples were be submitted from the diesel UST boring for initial laboratory analysis. Remaining samples were be held at analytical laboratory pending initial results.	2 Borings *4 feet bgs* 1 boring *25 feet bgs*	7	4	PAHs VOCs
Purpose: To assess potential soil gas impacts from the former UST system.				
One soil boring advanced to a depth of 5 feet bgs in the vicinity of former diesel UST.	1 Boring *4 feet bgs*	1	1	Petroleum-related VOCs

EPA = Environmental Protection Agency; SW-846 analytical methods
PAHs = polycyclic aromatic hydrocarbons by EPA Method 8270
VOCs + TICs = volatile organic compounds and tentatively identified compounds by EPA Method 8260B
RCRA = Resource Conservation and Recovery Act by EPA Method 6020/7471/7470
PCBs = Polychlorinated Biphenyls by EPA Method 8082A

Field Investigation

3.1 Safety and Subsurface Utilities

Terracon is committed to the safety of all its employees. As such, and in accordance with our Incident and Injury Free® safety goals, Terracon conducted the fieldwork under a site-specific health and safety plan. The plan identified site-specific job hazards and proper pre-task planning procedures. Work was performed using U.S. EPA Level D work attire consisting of hard hats, high-visibility attire, safety glasses, protective gloves, and protective boots. Terracon contacted Arizona 811 and requested location and markings for subsurface utilities that the service was responsible for before commencing intrusive activities at the site. A private locator used ground penetrating radar (GPR) and located on-site utilities at the site on May 8, 2023. The results of the GPR survey were verbally reported to Terracon personnel on-site and marked on the ground surface. The GPR results did not identify anomalies within the vicinity of the former UST basin. A written GPR survey report was not created or included in this scope of work. Boring locations were adjusted in the field as needed to avoid the identified utilities.

3.2 Sampling Discussion

3.2.1 Soil Sampling

A total of six soil borings were advanced at the site. The soil sample locations were selected to assess the areas with likely to detect chemicals of concern based on the locations of potential sources. Refer to the attached Site Diagram (Exhibit 2, Appendix A) for a depiction of the sample locations and pertinent site features.

Soil samples were collected in laboratory-provided containers, properly labeled, and placed on ice in a cooler for transportation to the laboratory. The samples and completed chain of custody forms were relinquished under chain of custody procedures Pace Analytical (PACE) of Mt. Juliet, Tennessee, an Arizona Department of Health Services (ADHS) licensed analytical laboratory (ADHS License AZ0612). Soil samples were submitted for analysis on with a four-day turnaround time. The soil samples were analyzed using standard EPA or ASTM test methods as previously discussed.

3.2.2 Soil Vapor Sampling

One subsurface soil vapor well was installed at the site. The sample locations were selected to assess the areas with the highest potential for detecting chemicals of concern based on the locations of potential sources. Refer to the attached Site Diagram (Exhibit 2, Appendix A) for a depiction of the sample locations and pertinent site features.

The soil vapor sample was collected in batch certified stainless steel 1-liter Summa® canisters equipped with 200 milliliters per minute (ml/min) low-flow regulators provided by the laboratory.

3.3 Field Procedures

3.3.1 Boring Advancement

Drilling services were performed by Geomechanics Southwest, Inc. (GSI) on June 12, 2023, to advance six soil borings (SS-1 through SS-6). SS-1 was advanced to an approximate depth of 25 feet bgs utilizing a CME-75 truck-mounted drill rig equipped with hollow-stem auger. SS-2 through SS-6 were advanced between 4 feet and 8 feet, using a direct push drill rig with dedicated 1.5" hollow polyvinyl chloride (PVC) sample sleeves. SS-5 boring was terminated at 8 feet due to equipment refusal and no sample was recovered. Terracon environmental personnel directed and supervised the drilling activities, logged the soil borings, and collected field samples. Non-dedicated sampling equipment was cleaned using an Alconox® wash and potable water rinse prior to the beginning of the project and before collecting each soil sample.

3.3.2 Sub-Surface Soil Vapor Probe Sampling Construction

Drilling services were performed by GSI on June 12, 2023, to advance one boring to a depth of approximately 5 feet bgs via direct push drill rig in the vicinity of the former UST system. Once the boring was advanced, a vapor probe tip was attached to nylon tubing which was inserted into the drill hole and surrounded with clean silica sand. The remainder of the borehole was backfilled with hydrated bentonite and/or clay. The open end of the tubing at the surface was capped and secured with a nylon cable tie to prevent entry of ambient air into the vapor probe.

3.3.3 Field Screening

During advancement of the soil borings, soils were continuously cored in approximate 4-foot intervals and observed to document subsurface soil types, color, relative moisture content, photoionization detector (PID) readings, and sensory evidence of environmental impacts. Terracon calibrated the PID in accordance with the manufacturer's recommendations before the field activities. The boring logs in Appendix C include the lithology and field screening results for each boring.

3.4 Sample Collection

3.4.1 Soil

Terracon's soil sampling program involved assigning one soil sample from each soil boring with the exception of SS-1 which had two soil samples for laboratory analysis. The soil sample collected from the interval exhibiting, the highest PID reading and/or highest likelihood of a release based on the field professional's judgment in each soil boring was selected for laboratory analysis.

Additional soil samples were collected from each soil boring for possible vertical assessment purposes. These additional soil samples were submitted to the laboratory and placed on hold for possible analysis if deemed warranted based on the initial analytical results. The soil samples were collected using EPA 5035 field methods. Soil sample intervals for each boring are presented on the soil boring logs included in Appendix C.

3.4.2 Soil Vapor

A period of at least 2 hours was allowed for the subsurface sample probe equilibration prior to sampling the soil vapor probe using laboratory-supplied 1-liter Summa® canisters that were pretested and batch-

certified as free of chemicals of concern (COC) by the analytical laboratory. The canister was connected to the sampling probe using dedicated silicone tubing and were equipped with laboratory-supplied flow regulators allowing for sample collection at a low-flow rate (i.e., <200 ml/min).

Prior to sample collection, the sampling train was tested for leaks using vacuum shut-in methods. Additionally, the soil vapor sampling probe and sampling train was tested for leaks using a shroud filled with helium tracer vapor. Approximately three 500-ml volumes were purged from each soil vapor sampling probe through the sample train tubing prior to sample collection. These volumes were tested for the presence of helium with a portable field helium detector to confirm the integrity of the sample train and probes. The results of the vacuum shut-in and helium shroud leak tests did not indicate the presence of leaks.

Upon completion of sample collection, the Summa® canister was closed, secured, and appropriately labeled with pertinent sample information. Canister pressures were recorded upon initiation of sample collection, after sample collection, and after receipt at the laboratory. The sample containers were transported under chain of custody forms were relinquished under chain of custody procedures PACE of Mt. Juliet, Tennessee, an ADHS licensed analytical laboratory (ADHS License AZ0612).

3.5 Site Restoration

At the completion of field activities, the borings and soil vapor well were backfilled with soil cuttings and capped with concrete as indicated at the surface.

3.6 Investigation-Derived Waste (IDW)

No IDW was generated during this project. Soil cuttings were returned to the borings. Disposable personal protective equipment (PPE) used during the course of the investigation was deemed non-hazardous and disposed of in a municipality-owned garbage receptacle.

Field Investigation Results

4.1 Geology/Hydrogeology

The boring logs in Appendix C detail the observed soil stratigraphy. The lithology encountered at the site generally consisted of silty sand. In the vicinity of the former UST basin, silty, sandy clay was encountered.

4.2 Field Screening

PID readings ranging from 0.1 ppm to 1.1 ppm were measured in soil samples collected during the advancement of the borings. The field screening results are presented on the boring logs found in Appendix C. The PID reading from the soil vapor well prior to sampling was 49.3 ppm.

Laboratory Analytical Results

The laboratory analytical report and chain of custody records are attached in Appendix D. The following sections describe the results of the testing. The detection of an analyte at a concentration above a screening level does not necessarily indicate an adverse impact to human health or the environment; however, an exceedance of a screening level may indicate that additional investigation or action is warranted.

5.1 Comparative Data Standards

Constituent concentrations in soil were compared to current ADEQ (March 2009) Residential Soil Remediation Levels (SRLs) [rSRLs], Non-Residential SRLs (nrSRLs), and ADEQ Minimum Groundwater Protection Levels (GPLs – September 1996).

Constituent concentrations in soil vapor sampled were compared to the EPA's recommended default values used within the calculations include a target risk for carcinogens (TCR) of 10^{-6} and a target hazard quotient for non-carcinogens (THQ) of 0.1 for residential and commercial receptors.

5.2 Quality Assurance/Quality Control

Refer to Appendix D for the Laboratory Analytical Report. The lab report contains additional information regarding the sample preparation, analysis and results that should be considered in the interpretation of the data.

Quality assurance/quality control (QA/QC) of laboratory analytical data was maintained using the following methods and procedures:

- Established reporting limits (RLs) with the laboratory that meet project Data Quality Objectives (DQOs);
- Laboratory QA/QC controls, such as laboratory control standard (LCS), matrix spike (MS), and matrix spike duplicate (MSD);
- Collection of samples in laboratory provided containers;
- Chain of custody protocols;
- Storage and transportation of samples in secured, chilled containers (soil); and,
- Decontamination of reusable sampling equipment.

The laboratory conducts a QC of the data sets to ensure data meets data quality objectives. Terracon reviewed the laboratory reports and did not identify any QC standards substantially out of the control limits and/or that would negatively impact the data. Individual datum has been notated by the laboratory for specific criteria, as indicated in the reports attached as Appendix D.

5.3 Soil Sample Results

The following is a summary of the soil sample results:

- Arsenic, barium, chromium, and lead were detected in the soil samples from SS-4-4, SS-5-4, and SS-6-4. The reported concentrations were below the rSRLs, nRSLs, and GPLs.
- VOCs +TICs, PAHs, and PCBs were not reported above laboratory detection limits.

The soil analytical data and corresponding Action Levels are summarized in Table 1, Appendix B.

5.5 Soil Vapor Sample Results

Terracon used EPA's VISL Calculator to evaluate potential vapor intrusion health risks based on reported concentrations of VOCs in soil vapor. The VISL calculator uses generally recommended, media-specific, risk-based screening-level concentrations to estimate indoor air concentrations and resultant health risks to indoor receptors based on published EPA Regional Screening Levels. EPA's recommended default values used within the calculations include TCR of 10^{-6} and a THQ of 0.1. These values were used in the evaluation of the soil vapor results. The VISL Calculator output for both residential and commercial receptors is included in Appendix E. The following is a summary of the soil vapor sampling results:

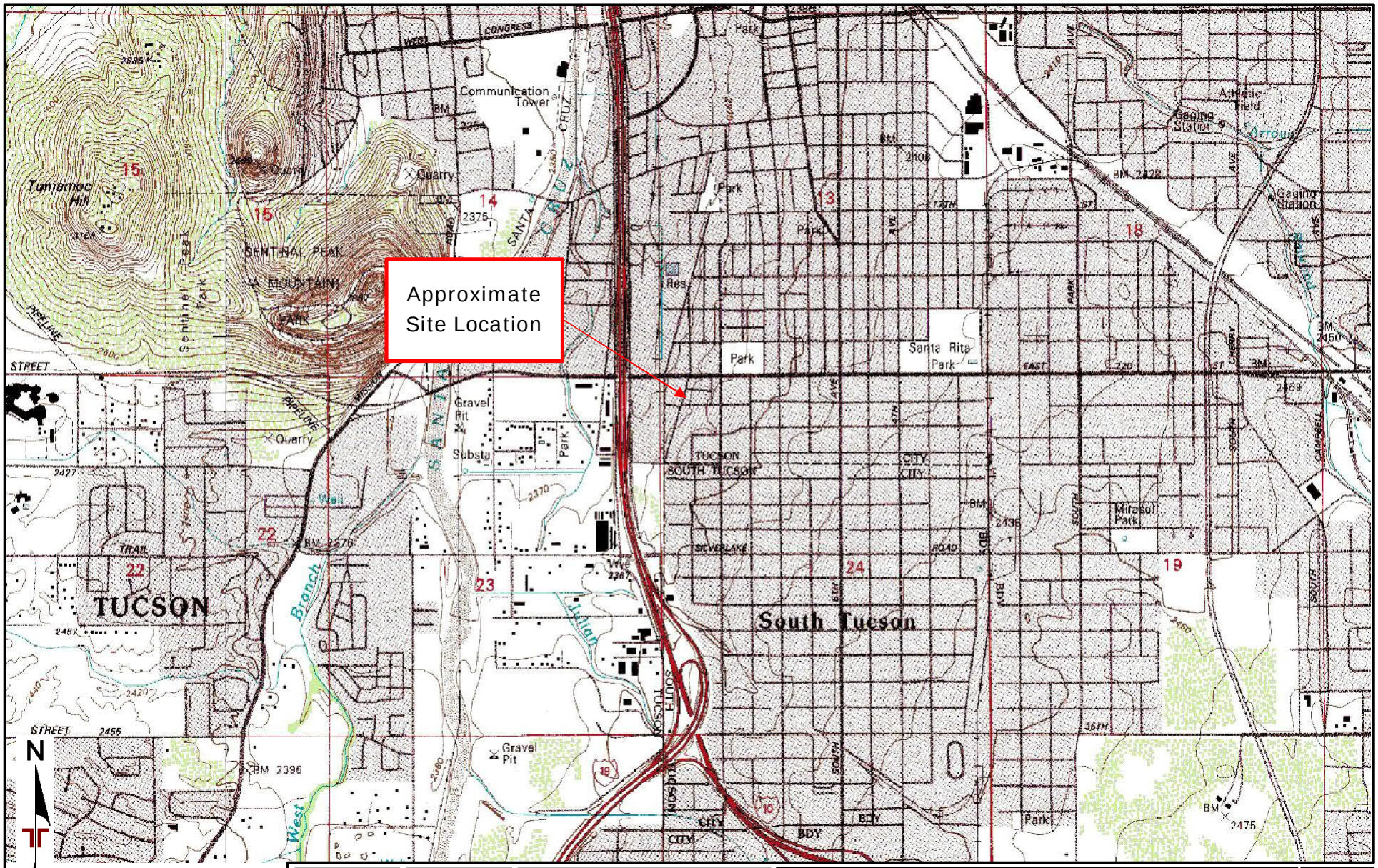
- Benzene, chloroethane, isopropylbenzene, toluene, 1,2,4-trimethylbenezene, M & P-xylene, and O-xylene were detected above RDLs in sample SG-1 but measured concentrations were below respective EPA residential and commercial VISLs.

The soil vapor analytical data and corresponding VISLs are summarized in Table 2, Appendix B.

APPENDIX A – EXHIBITS

Exhibit 1 – Topographic Map

Exhibit 2 – Site Diagram



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY QUADRANGLES INCLUDE: CAT MOUNTAIN, AZ (1/1/1996) and TUCSON, AZ (1/1/1996).

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	DRS
Drawn by:	DRS
Checked by:	JG
Approved by:	JG

Project No.	63227145A
Scale:	1"=2,000'
File Name:	APDX A
Date:	JUNE 2023

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ 85719-6654

TOPOGRAPHIC MAP

City of Tucson Container Maintenance Compound

1402 South 10th Avenue, Tucson, AZ

Exhibit 1

Symbol	Sample Description
	5 foot boring near each former dispenser
	25 foot boring near former diesel UST
	5 foot boring near apparent trench drain
	10 foot boring near potential hydraulic lift
	5 foot boring for soil gas sample

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	DRS
Drawn by:	DRS
Checked by:	JG
Approved by:	JG

Project No.	63227145A
Scale:	AS SHOWN
File Name:	APDX A
Date:	JUNE 2023

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ 85719-6654

SITE DIAGRAM

City of Tucson Container Maintenance Compound
1402 South 10th Avenue, Tucson, AZ

Exhibit 2

APPENDIX B – TABLES

Sample collection date: June 12, 2023

Soil Analytical Results Summary

Method	Analyte	Units	Residential SRLs			Non-Residential	Min. GPL	Analytical Results		
			Carcinogen		Non-Carcinogen					
			10^{-6} Risk	10^{-5} Risk				SS-4-4	SS-5-4	SS-6-4
6010D	ARSENIC	mg/kg	10	10	10	10	290	**4.19**	**4.4**	**3.74**
6010D	BARIUM	mg/kg	---	---	15000	170000	12000	**73.4**	**79.5**	**82.1**
6010D	CHROMIUM*	mg/kg	30	---	---	65	590	**9.3**	**10.6**	**9.99**
6010D	LEAD	mg/kg	---	---	400	800	290	**8.02**	**9.55**	**6.41**

Constituents not listed were not detected in concentrations exceeding the laboratory reporting limit (non-detects).

Key:	
Sample ID	SS-X-Y, X indicates sample ID and Y indicates depth in feet below ground surface.
mg/kg	milligrams per kilogram
SRLs	Soil Remediation Levels established by the Arizona Department of Environmental Quality (ADEQ)
---	SRL not established for this parameter
*	SRL is reported for Chromium VI, the lab values are reported for total Chromium
BOLD	Analytical results in **BOLD** exceed laboratory reportable detection limits
	Analytical results highlighted in **BLUE** exceed ADEQ 10^{-6} Residential SRLs
	Analytical results highlighted in **GREEN** exceed ADEQ 10^{-5} Residential SRLs
	Analytical results highlighted in **YELLOW** exceed ADEQ Non-Carcinogen Residential SRLs
	Analytical results highlighted in **RED** exceed ADEQ Non-Residential SRLs
	Analytical results highlighted in **PURPLE** exceed Minimum Groundwater Protection Limits (GPL)

Sample collection date: June 12, 2023

Soil Vapor Analytical Results Summary						
Method	**Analyte**	**CAS**	**Units**	**EPA VISL Residential Target Sub-Slab and Near-Source Soil Gas Concentration**	**EPA VISL Commercial Target Sub-Slab and Near-Source Soil Gas Concentration**	**Analytical Results**
						SG-1
TO-15	BENZENE	71-43-2	ug/m^3	12.00	52.40	**1.91**
TO-15	CHLOROETHANE	75-00-3	ug/m^3	13,900.00	58,400.00	**0.528**
TO-15	ISOPROPYLBENZENE	98-82-8	ug/m^3	1,390.00	5,840.00	**1.24**
TO-15	TOLUENE	108-88-3	ug/m^3	17,400.00	73,000.00	**12.3**
TO-15	1,2,4-TRIMETHYLBENZENE	95-63-6	ug/m^3	209.00	876.00	**1.82**
TO-15	M&P-XYLENE	1330-20-7	ug/m^3	348.00	1,460.00	**2.44**
TO-15	O-XYLENE	95-47-6	ug/m^3	348.00	1,460.00	**1.42**

Constituents not listed were not detected at concentrations exceeding the laboratory reporting limit (non-detects).

Key

VSLs- Vapor Intrusion Screening Levels
ug/m^3 micrograms per cubic meter
Bold analytical results exceed laboratory Reported Detection Limit (RDL)
Target Sub-Slab and Near-Source Soil Gas values using EPA VISLs (May 2023) with TCR=10^{-6} or THQ=0.1
TCR- Target Cancer Risk
THQ- Target Hazard Quoitent

APPENDIX C – SOIL BORING LOGS

COT Container Maintenance Compound
1402 South 10th Avenue | Tucson, Arizona
Terracon Project No. 63227145A

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. SS-1

Location:
Latitude: 32.2042° Longitude: -110.9754°

Graphic Log	Depth (Ft.)	Elevation: 2394 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	PID (ppm)
	6.0	**SANDY SILTY CLAY (CL-ML)**, trace gravel, brown, loose, no odor	2388				
			5		X	3-3-3 N=6	0.1
	12.0	**SILTY CLAY (CL)**, brown, very stiff, no odor	2382				
			10		X	2-5-16 N=21	0.2
	16.0	**SILTY SAND WITH GRAVEL (SM)**, brown, medium dense, moderate cementation, no odor	2378				
			15		X	7-11-13 N=24	0.7
	22.0	**SILTY SAND (SM)**, trace gravel, brown, very dense, no odor	2372				
			20		X	18-50/4"	0.7
	26.0	**LEAN CLAY (CL)**, brown, hard, no odor	2368				
			25		X	6-15-43 N=58	1.1
		Boring Terminated at 26 Feet					

Water Level Observations
Groundwater not encountered

Drill Rig
CME 75

Hammer Type
Automatic

Driller
GSI

Logged by
B. Quesada

Boring Started
06-12-2023

Boring Completed
06-12-2023

Notes
Elevation Reference: Elevation obtained from Google Earth Pro

Advancement Method
8-inch Hollow Stem Auger

Abandonment Method
Boring backfilled with auger cuttings upon completion.

COT Container Maintenance Compound
1402 South 10th Avenue | Tucson, Arizona
Terracon Project No. 63227145A

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. SS-2

Graphic Log	Location: Latitude: 32.2043° Longitude: -110.9754° / Depth (Ft.) / Elevation: 2394 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	PID (ppm)
	4.0 **SILTY CLAY (CL)**, brown, no odor 2390					1.1
	Boring Terminated at 4 Feet					

Water Level Observations
Groundwater not encountered

Drill Rig
Direct Push Rig

Driller
GSI

Logged by
B. Quesada

Boring Started
06-12-2023

Boring Completed
06-12-2023

Notes
Elevation Reference: Elevation obtained from Google Earth Pro

Advancement Method

Abandonment Method
Boring backfilled with auger cuttings upon completion.

COT Container Maintenance Compound
1402 South 10th Avenue | Tucson, Arizona
Terracon Project No. 63227145A

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. SS-3

Graphic Log	Location: Latitude: 32.2043° Longitude: -110.9754°	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	PID (ppm)
	Depth (Ft.) Elevation: 2394 (Ft.) +/-					
					no recovery	
		5				
	6.0 **SILTY CLAY (CL)**, trace gravel, brown, no odor 2388					0.2
	Sampler Refusal at 6 Feet					

Water Level Observations
Groundwater not encountered

Drill Rig
Direct Push Rig

Driller
GSI

Logged by
B. Quesada

Boring Started
06-12-2023

Boring Completed
06-12-2023

Notes
Elevation Reference: Elevation obtained from Google Earth Pro

Advancement Method

Abandonment Method
Boring backfilled with auger cuttings upon completion.

COT Container Maintenance Compound
1402 South 10th Avenue | Tucson, Arizona
Terracon Project No. 63227145A

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. SS-4

Graphic Log	Location / Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	PID (ppm)
	Latitude: 32.2049° Longitude: -110.9762° Elevation: 2391 (Ft.) +/-					
	4.0 **SILTY CLAY (CL)**, brown, no odor 2387					0.4
	Boring Terminated at 4 Feet					

Water Level Observations
Groundwater not encountered

Drill Rig
Direct Push Rig

Driller
GSI

Logged by
B. Quesada

Boring Started
06-12-2023

Boring Completed
06-12-2023

Notes
Elevation Reference: Elevation obtained from Google Earth Pro

Advancement Method

Abandonment Method
Boring backfilled with auger cuttings upon completion.

COT Container Maintenance Compound
1402 South 10th Avenue | Tucson, Arizona
Terracon Project No. 63227145A

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. SS-5

Graphic Log	Location: Latitude: 32.2049° Longitude: -110.9761°	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	PID (ppm)
	Depth (Ft.) Elevation: 2390 (Ft.) +/-					
	4.0 **SILTY SAND (SM)**, brown, no odor 2386					0.7
		5			no recovery	
	8.0 **CALICHE** 2382					
	Sampler Refusal at 8 Feet					

Water Level Observations
Groundwater not encountered

Drill Rig
Direct Push Rig

Driller
GSI

Logged by
B. Quesada

Boring Started
06-12-2023

Boring Completed
06-12-2023

Notes
Elevation Reference: Elevation obtained from Google Earth Pro

Advancement Method

Abandonment Method
Boring backfilled with auger cuttings upon completion.

COT Container Maintenance Compound
1402 South 10th Avenue | Tucson, Arizona
Terracon Project No. 63227145A

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. SS-6

Graphic Log	Location: Latitude: 32.2049° Longitude: -110.9760°	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	PID (ppm)
	Depth (Ft.) Elevation: 2390 (Ft.) +/-					
	4.0 **SILTY SAND (SM)**, brown, no odor 2386					0.9
	Boring Terminated at 4 Feet					

Water Level Observations
Groundwater not encountered

Drill Rig
Direct Push Rig

Driller
GSI

Logged by
B. Quesada

Boring Started
06-12-2023

Boring Completed
06-12-2023

Notes
Elevation Reference: Elevation obtained from Google Earth Pro

Advancement Method

Abandonment Method
Boring backfilled with auger cuttings upon completion.

APPENDIX D – LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY

ANALYTICAL REPORT

June 20, 2023

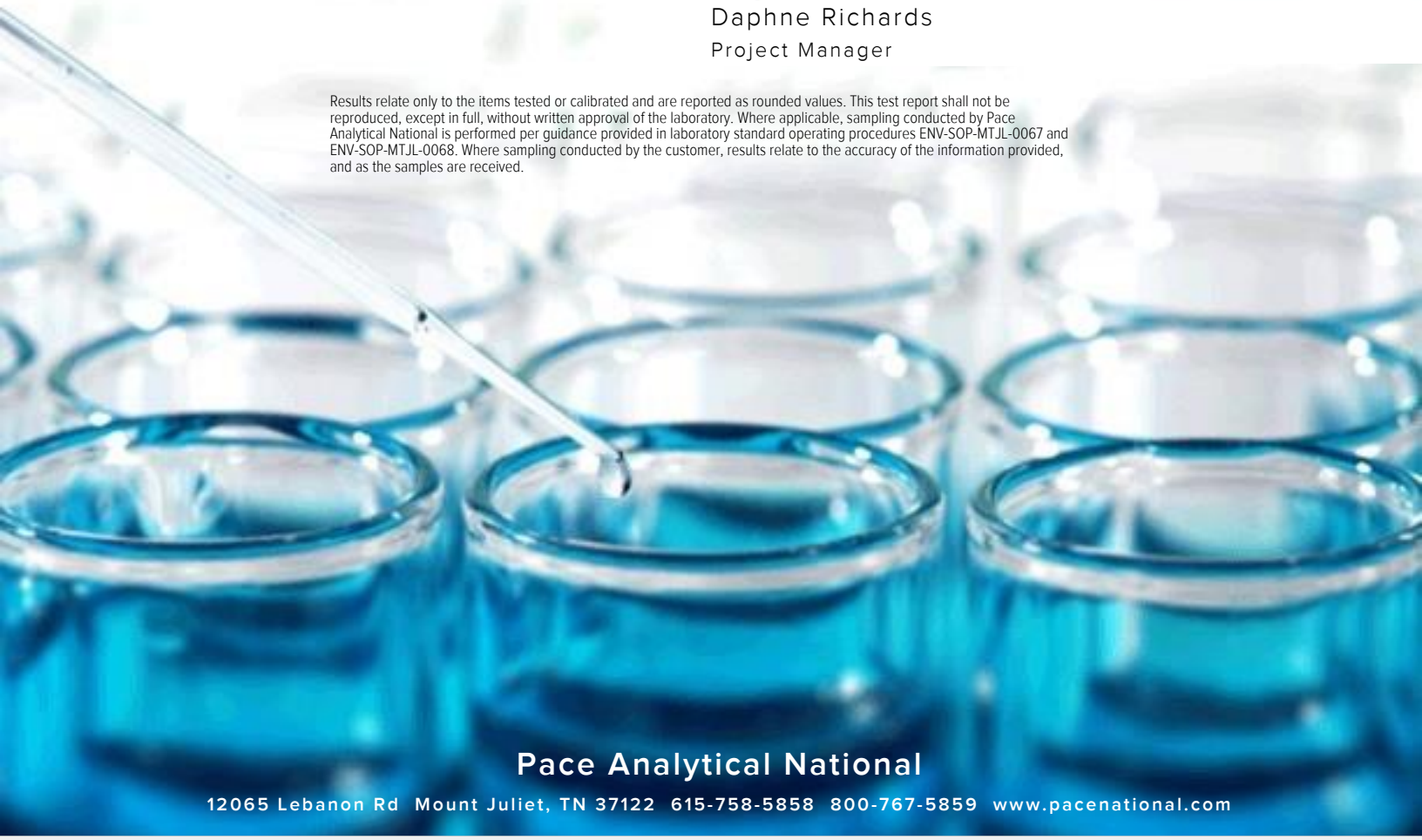
Terracon - Tucson, AZ

Sample Delivery Group:	L1625430
Samples Received:	06/13/2023
Project Number:	63227145A
Description:	City of Tucson Container Maintenance Compound

Report To: Derek Sizemore
355 South Euclid, Ste 107
Tucson, AZ 85719

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

SS-1-5 L1625430-01 Solid

Collected by: Breana Quesada | Collected date/time: 06/12/23 08:13 | Received date/time: 06/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2078598	1.83	06/12/23 08:13	06/15/23 19:49	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2077922	1	06/15/23 08:06	06/15/23 21:08	HLA	Mt. Juliet, TN

SS-1-25 L1625430-05 Solid

Collected by: Breana Quesada | Collected date/time: 06/12/23 08:42 | Received date/time: 06/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2078598	1	06/12/23 08:42	06/15/23 20:09	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2077922	1	06/15/23 08:06	06/15/23 17:16	HLA	Mt. Juliet, TN

SS-2-4 L1625430-06 Solid

Collected by: Breana Quesada | Collected date/time: 06/12/23 08:06 | Received date/time: 06/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2078598	1	06/12/23 08:06	06/15/23 20:29	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2077922	1	06/15/23 08:06	06/15/23 17:34	HLA	Mt. Juliet, TN

SS-3-6 L1625430-07 Solid

Collected by: Breana Quesada | Collected date/time: 06/12/23 08:25 | Received date/time: 06/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2078598	1.36	06/12/23 08:25	06/15/23 20:49	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2077922	1	06/15/23 08:06	06/15/23 17:52	HLA	Mt. Juliet, TN

SS-4-4 L1625430-08 Solid

Collected by: Breana Quesada | Collected date/time: 06/12/23 09:09 | Received date/time: 06/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7471B	WG2079989	1	06/19/23 10:26	06/19/23 19:27	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2077162	1	06/14/23 08:36	06/15/23 17:13	SPL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2078598	1.06	06/12/23 09:09	06/15/23 21:09	JAH	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2077070	1	06/14/23 08:20	06/14/23 14:12	DLH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2077922	1	06/15/23 08:06	06/15/23 18:10	HLA	Mt. Juliet, TN

SS-5-4 L1625430-09 Solid

Collected by: Breana Quesada | Collected date/time: 06/12/23 09:20 | Received date/time: 06/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7471B	WG2079989	1	06/19/23 10:26	06/19/23 19:29	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2077162	1	06/14/23 08:36	06/15/23 17:16	SPL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2078598	1.55	06/12/23 09:20	06/15/23 21:28	JAH	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2077070	1	06/14/23 08:20	06/14/23 14:23	DLH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2077922	1	06/15/23 08:06	06/15/23 18:27	HLA	Mt. Juliet, TN

SAMPLE SUMMARY

SS-6-4 L1625430-10 Solid

Collected by: Breana Quesada
Collected date/time: 06/12/23 10:10
Received date/time: 06/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7471B	WG2079989	1	06/19/23 10:26	06/19/23 19:31	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2077162	1	06/14/23 08:36	06/15/23 17:19	SPL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2078598	1.29	06/12/23 10:10	06/15/23 21:48	JAH	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2077070	1	06/14/23 08:20	06/14/23 14:33	DLH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2077922	1	06/15/23 08:06	06/15/23 18:45	HLA	Mt. Juliet, TN

CASE NARRATIVE

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

Daphne Richards
Project Manager

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	ND		2.29	1.83	06/15/2023 19:49	WG2078598
Acrylonitrile	ND		0.572	1.83	06/15/2023 19:49	WG2078598
Benzene	ND		0.0458	1.83	06/15/2023 19:49	WG2078598
Bromobenzene	ND		0.572	1.83	06/15/2023 19:49	WG2078598
Bromodichloromethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Bromoform	ND		1.14	1.83	06/15/2023 19:49	WG2078598
Bromomethane	ND		0.572	1.83	06/15/2023 19:49	WG2078598
1,3-Butadiene	ND		1.14	1.83	06/15/2023 19:49	WG2078598
n-Butylbenzene	ND		0.572	1.83	06/15/2023 19:49	WG2078598
sec-Butylbenzene	ND		0.572	1.83	06/15/2023 19:49	WG2078598
tert-Butylbenzene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Carbon disulfide	ND		0.572	1.83	06/15/2023 19:49	WG2078598
Carbon tetrachloride	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Chlorobenzene	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Chlorodibromomethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Chloroethane	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Chloroform	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Chloromethane	ND		0.572	1.83	06/15/2023 19:49	WG2078598
2-Chlorotoluene	ND		0.114	1.83	06/15/2023 19:49	WG2078598
4-Chlorotoluene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Cyclohexane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
1,2-Dibromo-3-Chloropropane	ND		1.14	1.83	06/15/2023 19:49	WG2078598
1,2-Dibromoethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Dibromomethane	ND		0.229	1.83	06/15/2023 19:49	WG2078598
1,2-Dichlorobenzene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
1,3-Dichlorobenzene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
1,4-Dichlorobenzene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Dichlorodifluoromethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
1,1-Dichloroethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
1,2-Dichloroethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
1,1-Dichloroethene	ND		0.114	1.83	06/15/2023 19:49	WG2078598
cis-1,2-Dichloroethene	ND		0.114	1.83	06/15/2023 19:49	WG2078598
trans-1,2-Dichloroethene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
1,2-Dichloropropane	ND		0.229	1.83	06/15/2023 19:49	WG2078598
1,1-Dichloropropene	ND		0.114	1.83	06/15/2023 19:49	WG2078598
1,3-Dichloropropane	ND		0.229	1.83	06/15/2023 19:49	WG2078598
cis-1,3-Dichloropropene	ND		0.114	1.83	06/15/2023 19:49	WG2078598
trans-1,3-Dichloropropene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
2,2-Dichloropropane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Dicyclopentadiene	ND		0.572	1.83	06/15/2023 19:49	WG2078598
Di-isopropyl ether	ND		0.0458	1.83	06/15/2023 19:49	WG2078598
Ethylbenzene	ND		0.114	1.83	06/15/2023 19:49	WG2078598
4-Ethyltoluene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Hexachloro-1,3-butadiene	ND		1.14	1.83	06/15/2023 19:49	WG2078598
n-Hexane	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Isopropylbenzene	ND		0.114	1.83	06/15/2023 19:49	WG2078598
p-Isopropyltoluene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
2-Butanone (MEK)	ND		4.58	1.83	06/15/2023 19:49	WG2078598
Methylene Chloride	ND		1.14	1.83	06/15/2023 19:49	WG2078598
4-Methyl-2-pentanone (MIBK)	ND		1.14	1.83	06/15/2023 19:49	WG2078598
Methyl tert-butyl ether	ND		0.0458	1.83	06/15/2023 19:49	WG2078598
Methyl Cyclohexane	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Naphthalene	ND		0.572	1.83	06/15/2023 19:49	WG2078598
Propene	ND		2.29	1.83	06/15/2023 19:49	WG2078598
n-Propylbenzene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Styrene	ND		0.572	1.83	06/15/2023 19:49	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
1,1,2,2-Tetrachloroethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
1,1,2-Trichlorotrifluoroethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Tetrachloroethene	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Toluene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
1,2,3-Trichlorobenzene	ND		0.572	1.83	06/15/2023 19:49	WG2078598
1,2,4-Trichlorobenzene	ND		0.572	1.83	06/15/2023 19:49	WG2078598
1,1,1-Trichloroethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
1,1,2-Trichloroethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Trichloroethene	ND		0.0458	1.83	06/15/2023 19:49	WG2078598
Trichlorofluoromethane	ND		0.114	1.83	06/15/2023 19:49	WG2078598
1,2,3-Trichloropropane	ND		0.572	1.83	06/15/2023 19:49	WG2078598
1,2,4-Trimethylbenzene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
1,2,3-Trimethylbenzene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
1,3,5-Trimethylbenzene	ND		0.229	1.83	06/15/2023 19:49	WG2078598
Vinyl chloride	ND		0.114	1.83	06/15/2023 19:49	WG2078598
Xylenes, Total	ND		0.297	1.83	06/15/2023 19:49	WG2078598
(S) Toluene-d8	*102*		*75.0-131*		*06/15/2023 19:49*	WG2078598
(S) 4-Bromofluorobenzene	*83.8*		*67.0-138*		*06/15/2023 19:49*	WG2078598
(S) 1,2-Dichloroethane-d4	*93.6*		*70.0-130*		*06/15/2023 19:49*	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Acenaphthene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Acenaphthylene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Benzo(a)anthracene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Benzo(a)pyrene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Benzo(b)fluoranthene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Benzo(g,h,i)perylene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Benzo(k)fluoranthene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Chrysene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Dibenz(a,h)anthracene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Fluoranthene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Fluorene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Naphthalene	ND		0.0200	1	06/15/2023 21:08	WG2077922
Phenanthrene	ND		0.00600	1	06/15/2023 21:08	WG2077922
Pyrene	ND		0.00600	1	06/15/2023 21:08	WG2077922
1-Methylnaphthalene	ND		0.0200	1	06/15/2023 21:08	WG2077922
2-Methylnaphthalene	ND		0.0200	1	06/15/2023 21:08	WG2077922
2-Chloronaphthalene	ND		0.0200	1	06/15/2023 21:08	WG2077922
(S) p-Terphenyl-d14	*86.0*		*23.0-120*		*06/15/2023 21:08*	WG2077922
(S) Nitrobenzene-d5	*81.2*		*14.0-149*		*06/15/2023 21:08*	WG2077922
(S) 2-Fluorobiphenyl	*79.2*		*34.0-125*		*06/15/2023 21:08*	WG2077922

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	ND		1.25	1	06/15/2023 20:09	WG2078598
Acrylonitrile	ND		0.313	1	06/15/2023 20:09	WG2078598
Benzene	ND		0.0250	1	06/15/2023 20:09	WG2078598
Bromobenzene	ND		0.313	1	06/15/2023 20:09	WG2078598
Bromodichloromethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
Bromoform	ND		0.625	1	06/15/2023 20:09	WG2078598
Bromomethane	ND		0.313	1	06/15/2023 20:09	WG2078598
1,3-Butadiene	ND		0.625	1	06/15/2023 20:09	WG2078598
n-Butylbenzene	ND		0.313	1	06/15/2023 20:09	WG2078598
sec-Butylbenzene	ND		0.313	1	06/15/2023 20:09	WG2078598
tert-Butylbenzene	ND		0.125	1	06/15/2023 20:09	WG2078598
Carbon disulfide	ND		0.313	1	06/15/2023 20:09	WG2078598
Carbon tetrachloride	ND		0.125	1	06/15/2023 20:09	WG2078598
Chlorobenzene	ND		0.0625	1	06/15/2023 20:09	WG2078598
Chlorodibromomethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
Chloroethane	ND		0.125	1	06/15/2023 20:09	WG2078598
Chloroform	ND		0.0625	1	06/15/2023 20:09	WG2078598
Chloromethane	ND		0.313	1	06/15/2023 20:09	WG2078598
2-Chlorotoluene	ND		0.0625	1	06/15/2023 20:09	WG2078598
4-Chlorotoluene	ND		0.125	1	06/15/2023 20:09	WG2078598
Cyclohexane	ND		0.0625	1	06/15/2023 20:09	WG2078598
1,2-Dibromo-3-Chloropropane	ND		0.625	1	06/15/2023 20:09	WG2078598
1,2-Dibromoethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
Dibromomethane	ND		0.125	1	06/15/2023 20:09	WG2078598
1,2-Dichlorobenzene	ND		0.125	1	06/15/2023 20:09	WG2078598
1,3-Dichlorobenzene	ND		0.125	1	06/15/2023 20:09	WG2078598
1,4-Dichlorobenzene	ND		0.125	1	06/15/2023 20:09	WG2078598
Dichlorodifluoromethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
1,1-Dichloroethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
1,2-Dichloroethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
1,1-Dichloroethene	ND		0.0625	1	06/15/2023 20:09	WG2078598
cis-1,2-Dichloroethene	ND		0.0625	1	06/15/2023 20:09	WG2078598
trans-1,2-Dichloroethene	ND		0.125	1	06/15/2023 20:09	WG2078598
1,2-Dichloropropane	ND		0.125	1	06/15/2023 20:09	WG2078598
1,1-Dichloropropene	ND		0.0625	1	06/15/2023 20:09	WG2078598
1,3-Dichloropropane	ND		0.125	1	06/15/2023 20:09	WG2078598
cis-1,3-Dichloropropene	ND		0.0625	1	06/15/2023 20:09	WG2078598
trans-1,3-Dichloropropene	ND		0.125	1	06/15/2023 20:09	WG2078598
2,2-Dichloropropane	ND		0.0625	1	06/15/2023 20:09	WG2078598
Dicyclopentadiene	ND		0.313	1	06/15/2023 20:09	WG2078598
Di-isopropyl ether	ND		0.0250	1	06/15/2023 20:09	WG2078598
Ethylbenzene	ND		0.0625	1	06/15/2023 20:09	WG2078598
4-Ethyltoluene	ND		0.125	1	06/15/2023 20:09	WG2078598
Hexachloro-1,3-butadiene	ND		0.625	1	06/15/2023 20:09	WG2078598
n-Hexane	ND		0.125	1	06/15/2023 20:09	WG2078598
Isopropylbenzene	ND		0.0625	1	06/15/2023 20:09	WG2078598
p-Isopropyltoluene	ND		0.125	1	06/15/2023 20:09	WG2078598
2-Butanone (MEK)	ND		2.50	1	06/15/2023 20:09	WG2078598
Methylene Chloride	ND		0.625	1	06/15/2023 20:09	WG2078598
4-Methyl-2-pentanone (MIBK)	ND		0.625	1	06/15/2023 20:09	WG2078598
Methyl tert-butyl ether	ND		0.0250	1	06/15/2023 20:09	WG2078598
Methyl Cyclohexane	ND		0.125	1	06/15/2023 20:09	WG2078598
Naphthalene	ND		0.313	1	06/15/2023 20:09	WG2078598
Propene	ND		1.25	1	06/15/2023 20:09	WG2078598
n-Propylbenzene	ND		0.125	1	06/15/2023 20:09	WG2078598
Styrene	ND		0.313	1	06/15/2023 20:09	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
1,1,2,2-Tetrachloroethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
1,1,2-Trichlorotrifluoroethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
Tetrachloroethene	ND		0.0625	1	06/15/2023 20:09	WG2078598
Toluene	ND		0.125	1	06/15/2023 20:09	WG2078598
1,2,3-Trichlorobenzene	ND		0.313	1	06/15/2023 20:09	WG2078598
1,2,4-Trichlorobenzene	ND		0.313	1	06/15/2023 20:09	WG2078598
1,1,1-Trichloroethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
1,1,2-Trichloroethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
Trichloroethene	ND		0.0250	1	06/15/2023 20:09	WG2078598
Trichlorofluoromethane	ND		0.0625	1	06/15/2023 20:09	WG2078598
1,2,3-Trichloropropane	ND		0.313	1	06/15/2023 20:09	WG2078598
1,2,4-Trimethylbenzene	ND		0.125	1	06/15/2023 20:09	WG2078598
1,2,3-Trimethylbenzene	ND		0.125	1	06/15/2023 20:09	WG2078598
1,3,5-Trimethylbenzene	ND		0.125	1	06/15/2023 20:09	WG2078598
Vinyl chloride	ND		0.0625	1	06/15/2023 20:09	WG2078598
Xylenes, Total	ND		0.163	1	06/15/2023 20:09	WG2078598
(S) Toluene-d8	*101*		*75.0-131*		*06/15/2023 20:09*	WG2078598
(S) 4-Bromofluorobenzene	*89.9*		*67.0-138*		*06/15/2023 20:09*	WG2078598
(S) 1,2-Dichloroethane-d4	*99.6*		*70.0-130*		*06/15/2023 20:09*	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Acenaphthene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Acenaphthylene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Benzo(a)anthracene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Benzo(a)pyrene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Benzo(b)fluoranthene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Benzo(g,h,i)perylene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Benzo(k)fluoranthene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Chrysene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Dibenz(a,h)anthracene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Fluoranthene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Fluorene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Naphthalene	ND		0.0200	1	06/15/2023 17:16	WG2077922
Phenanthrene	ND		0.00600	1	06/15/2023 17:16	WG2077922
Pyrene	ND		0.00600	1	06/15/2023 17:16	WG2077922
1-Methylnaphthalene	ND		0.0200	1	06/15/2023 17:16	WG2077922
2-Methylnaphthalene	ND		0.0200	1	06/15/2023 17:16	WG2077922
2-Chloronaphthalene	ND		0.0200	1	06/15/2023 17:16	WG2077922
(S) p-Terphenyl-d14	*68.7*		*23.0-120*		*06/15/2023 17:16*	WG2077922
(S) Nitrobenzene-d5	*81.9*		*14.0-149*		*06/15/2023 17:16*	WG2077922
(S) 2-Fluorobiphenyl	*71.2*		*34.0-125*		*06/15/2023 17:16*	WG2077922

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	ND		1.25	1	06/15/2023 20:29	WG2078598
Acrylonitrile	ND		0.313	1	06/15/2023 20:29	WG2078598
Benzene	ND		0.0250	1	06/15/2023 20:29	WG2078598
Bromobenzene	ND		0.313	1	06/15/2023 20:29	WG2078598
Bromodichloromethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
Bromoform	ND		0.625	1	06/15/2023 20:29	WG2078598
Bromomethane	ND		0.313	1	06/15/2023 20:29	WG2078598
1,3-Butadiene	ND		0.625	1	06/15/2023 20:29	WG2078598
n-Butylbenzene	ND		0.313	1	06/15/2023 20:29	WG2078598
sec-Butylbenzene	ND		0.313	1	06/15/2023 20:29	WG2078598
tert-Butylbenzene	ND		0.125	1	06/15/2023 20:29	WG2078598
Carbon disulfide	ND		0.313	1	06/15/2023 20:29	WG2078598
Carbon tetrachloride	ND		0.125	1	06/15/2023 20:29	WG2078598
Chlorobenzene	ND		0.0625	1	06/15/2023 20:29	WG2078598
Chlorodibromomethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
Chloroethane	ND		0.125	1	06/15/2023 20:29	WG2078598
Chloroform	ND		0.0625	1	06/15/2023 20:29	WG2078598
Chloromethane	ND		0.313	1	06/15/2023 20:29	WG2078598
2-Chlorotoluene	ND		0.0625	1	06/15/2023 20:29	WG2078598
4-Chlorotoluene	ND		0.125	1	06/15/2023 20:29	WG2078598
Cyclohexane	ND		0.0625	1	06/15/2023 20:29	WG2078598
1,2-Dibromo-3-Chloropropane	ND		0.625	1	06/15/2023 20:29	WG2078598
1,2-Dibromoethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
Dibromomethane	ND		0.125	1	06/15/2023 20:29	WG2078598
1,2-Dichlorobenzene	ND		0.125	1	06/15/2023 20:29	WG2078598
1,3-Dichlorobenzene	ND		0.125	1	06/15/2023 20:29	WG2078598
1,4-Dichlorobenzene	ND		0.125	1	06/15/2023 20:29	WG2078598
Dichlorodifluoromethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
1,1-Dichloroethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
1,2-Dichloroethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
1,1-Dichloroethene	ND		0.0625	1	06/15/2023 20:29	WG2078598
cis-1,2-Dichloroethene	ND		0.0625	1	06/15/2023 20:29	WG2078598
trans-1,2-Dichloroethene	ND		0.125	1	06/15/2023 20:29	WG2078598
1,2-Dichloropropane	ND		0.125	1	06/15/2023 20:29	WG2078598
1,1-Dichloropropene	ND		0.0625	1	06/15/2023 20:29	WG2078598
1,3-Dichloropropane	ND		0.125	1	06/15/2023 20:29	WG2078598
cis-1,3-Dichloropropene	ND		0.0625	1	06/15/2023 20:29	WG2078598
trans-1,3-Dichloropropene	ND		0.125	1	06/15/2023 20:29	WG2078598
2,2-Dichloropropane	ND		0.0625	1	06/15/2023 20:29	WG2078598
Dicyclopentadiene	ND		0.313	1	06/15/2023 20:29	WG2078598
Di-isopropyl ether	ND		0.0250	1	06/15/2023 20:29	WG2078598
Ethylbenzene	ND		0.0625	1	06/15/2023 20:29	WG2078598
4-Ethyltoluene	ND		0.125	1	06/15/2023 20:29	WG2078598
Hexachloro-1,3-butadiene	ND		0.625	1	06/15/2023 20:29	WG2078598
n-Hexane	ND		0.125	1	06/15/2023 20:29	WG2078598
Isopropylbenzene	ND		0.0625	1	06/15/2023 20:29	WG2078598
p-Isopropyltoluene	ND		0.125	1	06/15/2023 20:29	WG2078598
2-Butanone (MEK)	ND		2.50	1	06/15/2023 20:29	WG2078598
Methylene Chloride	ND		0.625	1	06/15/2023 20:29	WG2078598
4-Methyl-2-pentanone (MIBK)	ND		0.625	1	06/15/2023 20:29	WG2078598
Methyl tert-butyl ether	ND		0.0250	1	06/15/2023 20:29	WG2078598
Methyl Cyclohexane	ND		0.125	1	06/15/2023 20:29	WG2078598
Naphthalene	ND		0.313	1	06/15/2023 20:29	WG2078598
Propene	ND		1.25	1	06/15/2023 20:29	WG2078598
n-Propylbenzene	ND		0.125	1	06/15/2023 20:29	WG2078598
Styrene	ND		0.313	1	06/15/2023 20:29	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
1,1,2,2-Tetrachloroethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
1,1,2-Trichlorotrifluoroethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
Tetrachloroethene	ND		0.0625	1	06/15/2023 20:29	WG2078598
Toluene	ND		0.125	1	06/15/2023 20:29	WG2078598
1,2,3-Trichlorobenzene	ND		0.313	1	06/15/2023 20:29	WG2078598
1,2,4-Trichlorobenzene	ND		0.313	1	06/15/2023 20:29	WG2078598
1,1,1-Trichloroethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
1,1,2-Trichloroethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
Trichloroethene	ND		0.0250	1	06/15/2023 20:29	WG2078598
Trichlorofluoromethane	ND		0.0625	1	06/15/2023 20:29	WG2078598
1,2,3-Trichloropropane	ND		0.313	1	06/15/2023 20:29	WG2078598
1,2,4-Trimethylbenzene	ND		0.125	1	06/15/2023 20:29	WG2078598
1,2,3-Trimethylbenzene	ND		0.125	1	06/15/2023 20:29	WG2078598
1,3,5-Trimethylbenzene	ND		0.125	1	06/15/2023 20:29	WG2078598
Vinyl chloride	ND		0.0625	1	06/15/2023 20:29	WG2078598
Xylenes, Total	ND		0.163	1	06/15/2023 20:29	WG2078598
(S) Toluene-d8	*105*		*75.0-131*		*06/15/2023 20:29*	WG2078598
(S) 4-Bromofluorobenzene	*86.3*		*67.0-138*		*06/15/2023 20:29*	WG2078598
(S) 1,2-Dichloroethane-d4	*94.8*		*70.0-130*		*06/15/2023 20:29*	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Acenaphthene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Acenaphthylene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Benzo(a)anthracene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Benzo(a)pyrene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Benzo(b)fluoranthene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Benzo(g,h,i)perylene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Benzo(k)fluoranthene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Chrysene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Dibenz(a,h)anthracene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Fluoranthene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Fluorene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Naphthalene	ND		0.0200	1	06/15/2023 17:34	WG2077922
Phenanthrene	ND		0.00600	1	06/15/2023 17:34	WG2077922
Pyrene	ND		0.00600	1	06/15/2023 17:34	WG2077922
1-Methylnaphthalene	ND		0.0200	1	06/15/2023 17:34	WG2077922
2-Methylnaphthalene	ND		0.0200	1	06/15/2023 17:34	WG2077922
2-Chloronaphthalene	ND		0.0200	1	06/15/2023 17:34	WG2077922
(S) p-Terphenyl-d14	*72.7*		*23.0-120*		*06/15/2023 17:34*	WG2077922
(S) Nitrobenzene-d5	*78.5*		*14.0-149*		*06/15/2023 17:34*	WG2077922
(S) 2-Fluorobiphenyl	*78.1*		*34.0-125*		*06/15/2023 17:34*	WG2077922

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	ND		1.70	1.36	06/15/2023 20:49	WG2078598
Acrylonitrile	ND		0.425	1.36	06/15/2023 20:49	WG2078598
Benzene	ND		0.0340	1.36	06/15/2023 20:49	WG2078598
Bromobenzene	ND		0.425	1.36	06/15/2023 20:49	WG2078598
Bromodichloromethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Bromoform	ND		0.850	1.36	06/15/2023 20:49	WG2078598
Bromomethane	ND		0.425	1.36	06/15/2023 20:49	WG2078598
1,3-Butadiene	ND		0.850	1.36	06/15/2023 20:49	WG2078598
n-Butylbenzene	ND		0.425	1.36	06/15/2023 20:49	WG2078598
sec-Butylbenzene	ND		0.425	1.36	06/15/2023 20:49	WG2078598
tert-Butylbenzene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Carbon disulfide	ND		0.425	1.36	06/15/2023 20:49	WG2078598
Carbon tetrachloride	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Chlorobenzene	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Chlorodibromomethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Chloroethane	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Chloroform	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Chloromethane	ND		0.425	1.36	06/15/2023 20:49	WG2078598
2-Chlorotoluene	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
4-Chlorotoluene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Cyclohexane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
1,2-Dibromo-3-Chloropropane	ND		0.850	1.36	06/15/2023 20:49	WG2078598
1,2-Dibromoethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Dibromomethane	ND		0.170	1.36	06/15/2023 20:49	WG2078598
1,2-Dichlorobenzene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
1,3-Dichlorobenzene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
1,4-Dichlorobenzene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Dichlorodifluoromethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
1,1-Dichloroethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
1,2-Dichloroethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
1,1-Dichloroethene	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
cis-1,2-Dichloroethene	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
trans-1,2-Dichloroethene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
1,2-Dichloropropane	ND		0.170	1.36	06/15/2023 20:49	WG2078598
1,1-Dichloropropene	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
1,3-Dichloropropane	ND		0.170	1.36	06/15/2023 20:49	WG2078598
cis-1,3-Dichloropropene	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
trans-1,3-Dichloropropene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
2,2-Dichloropropane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Dicyclopentadiene	ND		0.425	1.36	06/15/2023 20:49	WG2078598
Di-isopropyl ether	ND		0.0340	1.36	06/15/2023 20:49	WG2078598
Ethylbenzene	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
4-Ethyltoluene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Hexachloro-1,3-butadiene	ND		0.850	1.36	06/15/2023 20:49	WG2078598
n-Hexane	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Isopropylbenzene	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
p-Isopropyltoluene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
2-Butanone (MEK)	ND		3.40	1.36	06/15/2023 20:49	WG2078598
Methylene Chloride	ND		0.850	1.36	06/15/2023 20:49	WG2078598
4-Methyl-2-pentanone (MIBK)	ND		0.850	1.36	06/15/2023 20:49	WG2078598
Methyl tert-butyl ether	ND		0.0340	1.36	06/15/2023 20:49	WG2078598
Methyl Cyclohexane	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Naphthalene	ND		0.425	1.36	06/15/2023 20:49	WG2078598
Propene	ND		1.70	1.36	06/15/2023 20:49	WG2078598
n-Propylbenzene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Styrene	ND		0.425	1.36	06/15/2023 20:49	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
1,1,2,2-Tetrachloroethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
1,1,2-Trichlorotrifluoroethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Tetrachloroethene	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Toluene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
1,2,3-Trichlorobenzene	ND		0.425	1.36	06/15/2023 20:49	WG2078598
1,2,4-Trichlorobenzene	ND		0.425	1.36	06/15/2023 20:49	WG2078598
1,1,1-Trichloroethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
1,1,2-Trichloroethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Trichloroethene	ND		0.0340	1.36	06/15/2023 20:49	WG2078598
Trichlorofluoromethane	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
1,2,3-Trichloropropane	ND		0.425	1.36	06/15/2023 20:49	WG2078598
1,2,4-Trimethylbenzene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
1,2,3-Trimethylbenzene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
1,3,5-Trimethylbenzene	ND		0.170	1.36	06/15/2023 20:49	WG2078598
Vinyl chloride	ND		0.0850	1.36	06/15/2023 20:49	WG2078598
Xylenes, Total	ND		0.221	1.36	06/15/2023 20:49	WG2078598
(S) Toluene-d8	*103*		*75.0-131*		*06/15/2023 20:49*	WG2078598
(S) 4-Bromofluorobenzene	*86.8*		*67.0-138*		*06/15/2023 20:49*	WG2078598
(S) 1,2-Dichloroethane-d4	*95.1*		*70.0-130*		*06/15/2023 20:49*	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Acenaphthene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Acenaphthylene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Benzo(a)anthracene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Benzo(a)pyrene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Benzo(b)fluoranthene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Benzo(g,h,i)perylene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Benzo(k)fluoranthene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Chrysene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Dibenz(a,h)anthracene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Fluoranthene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Fluorene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Naphthalene	ND		0.0200	1	06/15/2023 17:52	WG2077922
Phenanthrene	ND		0.00600	1	06/15/2023 17:52	WG2077922
Pyrene	ND		0.00600	1	06/15/2023 17:52	WG2077922
1-Methylnaphthalene	ND		0.0200	1	06/15/2023 17:52	WG2077922
2-Methylnaphthalene	ND		0.0200	1	06/15/2023 17:52	WG2077922
2-Chloronaphthalene	ND		0.0200	1	06/15/2023 17:52	WG2077922
(S) p-Terphenyl-d14	*80.4*		*23.0-120*		*06/15/2023 17:52*	WG2077922
(S) Nitrobenzene-d5	*82.2*		*14.0-149*		*06/15/2023 17:52*	WG2077922
(S) 2-Fluorobiphenyl	*75.6*		*34.0-125*		*06/15/2023 17:52*	WG2077922

Mercury by Method 7471B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0400	1	06/19/2023 19:27	WG2079989

Metals (ICP) by Method 6010D

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.19		2.00	1	06/15/2023 17:13	WG2077162
Barium	73.4		0.500	1	06/15/2023 17:13	WG2077162
Cadmium	ND		0.500	1	06/15/2023 17:13	WG2077162
Chromium	9.30		1.00	1	06/15/2023 17:13	WG2077162
Lead	8.02		0.500	1	06/15/2023 17:13	WG2077162
Selenium	ND		2.00	1	06/15/2023 17:13	WG2077162
Silver	ND		1.00	1	06/15/2023 17:13	WG2077162

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	ND		1.33	1.06	06/15/2023 21:09	WG2078598
Acrylonitrile	ND		0.331	1.06	06/15/2023 21:09	WG2078598
Benzene	ND		0.0265	1.06	06/15/2023 21:09	WG2078598
Bromobenzene	ND		0.331	1.06	06/15/2023 21:09	WG2078598
Bromodichloromethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
Bromoform	ND		0.663	1.06	06/15/2023 21:09	WG2078598
Bromomethane	ND		0.331	1.06	06/15/2023 21:09	WG2078598
1,3-Butadiene	ND		0.663	1.06	06/15/2023 21:09	WG2078598
n-Butylbenzene	ND		0.331	1.06	06/15/2023 21:09	WG2078598
sec-Butylbenzene	ND		0.331	1.06	06/15/2023 21:09	WG2078598
tert-Butylbenzene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Carbon disulfide	ND		0.331	1.06	06/15/2023 21:09	WG2078598
Carbon tetrachloride	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Chlorobenzene	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
Chlorodibromomethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
Chloroethane	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Chloroform	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
Chloromethane	ND		0.331	1.06	06/15/2023 21:09	WG2078598
2-Chlorotoluene	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
4-Chlorotoluene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Cyclohexane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
1,2-Dibromo-3-Chloropropane	ND		0.663	1.06	06/15/2023 21:09	WG2078598
1,2-Dibromoethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
Dibromomethane	ND		0.133	1.06	06/15/2023 21:09	WG2078598
1,2-Dichlorobenzene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
1,3-Dichlorobenzene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
1,4-Dichlorobenzene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Dichlorodifluoromethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
1,1-Dichloroethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
1,2-Dichloroethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
1,1-Dichloroethene	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
cis-1,2-Dichloroethene	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
trans-1,2-Dichloroethene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
1,2-Dichloropropane	ND		0.133	1.06	06/15/2023 21:09	WG2078598
1,1-Dichloropropene	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
1,3-Dichloropropane	ND		0.133	1.06	06/15/2023 21:09	WG2078598
cis-1,3-Dichloropropene	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
trans-1,3-Dichloropropene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
2,2-Dichloropropane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Dicyclopentadiene	ND		0.331	1.06	06/15/2023 21:09	WG2078598
Di-isopropyl ether	ND		0.0265	1.06	06/15/2023 21:09	WG2078598
Ethylbenzene	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
4-Ethyltoluene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Hexachloro-1,3-butadiene	ND		0.663	1.06	06/15/2023 21:09	WG2078598
n-Hexane	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Isopropylbenzene	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
p-Isopropyltoluene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
2-Butanone (MEK)	ND		2.65	1.06	06/15/2023 21:09	WG2078598
Methylene Chloride	ND		0.663	1.06	06/15/2023 21:09	WG2078598
4-Methyl-2-pentanone (MIBK)	ND		0.663	1.06	06/15/2023 21:09	WG2078598
Methyl tert-butyl ether	ND		0.0265	1.06	06/15/2023 21:09	WG2078598
Methyl Cyclohexane	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Naphthalene	ND		0.331	1.06	06/15/2023 21:09	WG2078598
Propene	ND		1.33	1.06	06/15/2023 21:09	WG2078598
n-Propylbenzene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Styrene	ND		0.331	1.06	06/15/2023 21:09	WG2078598
1,1,1,2-Tetrachloroethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
1,1,2,2-Tetrachloroethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
1,1,2-Trichlorotrifluoroethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
Tetrachloroethene	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
Toluene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
1,2,3-Trichlorobenzene	ND		0.331	1.06	06/15/2023 21:09	WG2078598
1,2,4-Trichlorobenzene	ND		0.331	1.06	06/15/2023 21:09	WG2078598
1,1,1-Trichloroethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
1,1,2-Trichloroethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
Trichloroethene	ND		0.0265	1.06	06/15/2023 21:09	WG2078598
Trichlorofluoromethane	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
1,2,3-Trichloropropane	ND		0.331	1.06	06/15/2023 21:09	WG2078598
1,2,4-Trimethylbenzene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
1,2,3-Trimethylbenzene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
1,3,5-Trimethylbenzene	ND		0.133	1.06	06/15/2023 21:09	WG2078598
Vinyl chloride	ND		0.0663	1.06	06/15/2023 21:09	WG2078598
Xylenes, Total	ND		0.172	1.06	06/15/2023 21:09	WG2078598
(S) Toluene-d8	*101*		*75.0-131*		*06/15/2023 21:09*	WG2078598
(S) 4-Bromofluorobenzene	*93.9*		*67.0-138*		*06/15/2023 21:09*	WG2078598
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*06/15/2023 21:09*	WG2078598

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0340	1	06/14/2023 14:12	WG2077070
PCB 1221	ND		0.0340	1	06/14/2023 14:12	WG2077070
PCB 1232	ND		0.0340	1	06/14/2023 14:12	WG2077070
PCB 1242	ND		0.0340	1	06/14/2023 14:12	WG2077070
PCB 1248	ND		0.0170	1	06/14/2023 14:12	WG2077070
PCB 1254	ND		0.0170	1	06/14/2023 14:12	WG2077070
PCB 1260	ND		0.0170	1	06/14/2023 14:12	WG2077070
(S) Decachlorobiphenyl	*75.7*		*10.0-135*		*06/14/2023 14:12*	WG2077070
(S) Tetrachloro-m-xylene	*81.2*		*10.0-139*		*06/14/2023 14:12*	WG2077070

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Acenaphthene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Acenaphthylene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Benzo(a)anthracene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Benzo(a)pyrene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Benzo(b)fluoranthene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Benzo(g,h,i)perylene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Benzo(k)fluoranthene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Chrysene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Dibenz(a,h)anthracene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Fluoranthene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Fluorene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Naphthalene	ND		0.0200	1	06/15/2023 18:10	WG2077922
Phenanthrene	ND		0.00600	1	06/15/2023 18:10	WG2077922
Pyrene	ND		0.00600	1	06/15/2023 18:10	WG2077922
1-Methylnaphthalene	ND		0.0200	1	06/15/2023 18:10	WG2077922
2-Methylnaphthalene	ND		0.0200	1	06/15/2023 18:10	WG2077922
2-Chloronaphthalene	ND		0.0200	1	06/15/2023 18:10	WG2077922
(S) p-Terphenyl-d14	*92.5*		*23.0-120*		*06/15/2023 18:10*	WG2077922
(S) Nitrobenzene-d5	*91.6*		*14.0-149*		*06/15/2023 18:10*	WG2077922
(S) 2-Fluorobiphenyl	*88.8*		*34.0-125*		*06/15/2023 18:10*	WG2077922

Mercury by Method 7471B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0400	1	06/19/2023 19:29	WG2079989

Metals (ICP) by Method 6010D

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.40		2.00	1	06/15/2023 17:16	WG2077162
Barium	79.5		0.500	1	06/15/2023 17:16	WG2077162
Cadmium	ND		0.500	1	06/15/2023 17:16	WG2077162
Chromium	10.6		1.00	1	06/15/2023 17:16	WG2077162
Lead	9.55		0.500	1	06/15/2023 17:16	WG2077162
Selenium	ND		2.00	1	06/15/2023 17:16	WG2077162
Silver	ND		1.00	1	06/15/2023 17:16	WG2077162

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	ND		1.94	1.55	06/15/2023 21:28	WG2078598
Acrylonitrile	ND		0.484	1.55	06/15/2023 21:28	WG2078598
Benzene	ND		0.0388	1.55	06/15/2023 21:28	WG2078598
Bromobenzene	ND		0.484	1.55	06/15/2023 21:28	WG2078598
Bromodichloromethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
Bromoform	ND		0.969	1.55	06/15/2023 21:28	WG2078598
Bromomethane	ND		0.484	1.55	06/15/2023 21:28	WG2078598
1,3-Butadiene	ND		0.969	1.55	06/15/2023 21:28	WG2078598
n-Butylbenzene	ND		0.484	1.55	06/15/2023 21:28	WG2078598
sec-Butylbenzene	ND		0.484	1.55	06/15/2023 21:28	WG2078598
tert-Butylbenzene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Carbon disulfide	ND		0.484	1.55	06/15/2023 21:28	WG2078598
Carbon tetrachloride	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Chlorobenzene	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
Chlorodibromomethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
Chloroethane	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Chloroform	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
Chloromethane	ND		0.484	1.55	06/15/2023 21:28	WG2078598
2-Chlorotoluene	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
4-Chlorotoluene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Cyclohexane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
1,2-Dibromo-3-Chloropropane	ND		0.969	1.55	06/15/2023 21:28	WG2078598
1,2-Dibromoethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
Dibromomethane	ND		0.194	1.55	06/15/2023 21:28	WG2078598
1,2-Dichlorobenzene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
1,3-Dichlorobenzene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
1,4-Dichlorobenzene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Dichlorodifluoromethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
1,1-Dichloroethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
1,2-Dichloroethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
1,1-Dichloroethene	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
cis-1,2-Dichloroethene	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
trans-1,2-Dichloroethene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
1,2-Dichloropropane	ND		0.194	1.55	06/15/2023 21:28	WG2078598
1,1-Dichloropropene	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
1,3-Dichloropropane	ND		0.194	1.55	06/15/2023 21:28	WG2078598
cis-1,3-Dichloropropene	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
trans-1,3-Dichloropropene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
2,2-Dichloropropane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Dicyclopentadiene	ND		0.484	1.55	06/15/2023 21:28	WG2078598
Di-isopropyl ether	ND		0.0388	1.55	06/15/2023 21:28	WG2078598
Ethylbenzene	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
4-Ethyltoluene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Hexachloro-1,3-butadiene	ND		0.969	1.55	06/15/2023 21:28	WG2078598
n-Hexane	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Isopropylbenzene	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
p-Isopropyltoluene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
2-Butanone (MEK)	ND		3.88	1.55	06/15/2023 21:28	WG2078598
Methylene Chloride	ND		0.969	1.55	06/15/2023 21:28	WG2078598
4-Methyl-2-pentanone (MIBK)	ND		0.969	1.55	06/15/2023 21:28	WG2078598
Methyl tert-butyl ether	ND		0.0388	1.55	06/15/2023 21:28	WG2078598
Methyl Cyclohexane	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Naphthalene	ND		0.484	1.55	06/15/2023 21:28	WG2078598
Propene	ND		1.94	1.55	06/15/2023 21:28	WG2078598
n-Propylbenzene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Styrene	ND		0.484	1.55	06/15/2023 21:28	WG2078598
1,1,1,2-Tetrachloroethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
1,1,2,2-Tetrachloroethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
1,1,2-Trichlorotrifluoroethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
Tetrachloroethene	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
Toluene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
1,2,3-Trichlorobenzene	ND		0.484	1.55	06/15/2023 21:28	WG2078598
1,2,4-Trichlorobenzene	ND		0.484	1.55	06/15/2023 21:28	WG2078598
1,1,1-Trichloroethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
1,1,2-Trichloroethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
Trichloroethene	ND		0.0388	1.55	06/15/2023 21:28	WG2078598
Trichlorofluoromethane	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
1,2,3-Trichloropropane	ND		0.484	1.55	06/15/2023 21:28	WG2078598
1,2,4-Trimethylbenzene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
1,2,3-Trimethylbenzene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
1,3,5-Trimethylbenzene	ND		0.194	1.55	06/15/2023 21:28	WG2078598
Vinyl chloride	ND		0.0969	1.55	06/15/2023 21:28	WG2078598
Xylenes, Total	ND		0.252	1.55	06/15/2023 21:28	WG2078598
(S) Toluene-d8	*99.6*		*75.0-131*		*06/15/2023 21:28*	WG2078598
(S) 4-Bromofluorobenzene	*82.6*		*67.0-138*		*06/15/2023 21:28*	WG2078598
(S) 1,2-Dichloroethane-d4	*95.1*		*70.0-130*		*06/15/2023 21:28*	WG2078598

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0340	1	06/14/2023 14:23	WG2077070
PCB 1221	ND		0.0340	1	06/14/2023 14:23	WG2077070
PCB 1232	ND		0.0340	1	06/14/2023 14:23	WG2077070
PCB 1242	ND		0.0340	1	06/14/2023 14:23	WG2077070
PCB 1248	ND		0.0170	1	06/14/2023 14:23	WG2077070
PCB 1254	ND		0.0170	1	06/14/2023 14:23	WG2077070
PCB 1260	ND		0.0170	1	06/14/2023 14:23	WG2077070
(S) Decachlorobiphenyl	*72.6*		*10.0-135*		*06/14/2023 14:23*	WG2077070
(S) Tetrachloro-m-xylene	*79.7*		*10.0-139*		*06/14/2023 14:23*	WG2077070

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Acenaphthene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Acenaphthylene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Benzo(a)anthracene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Benzo(a)pyrene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Benzo(b)fluoranthene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Benzo(g,h,i)perylene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Benzo(k)fluoranthene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Chrysene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Dibenz(a,h)anthracene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Fluoranthene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Fluorene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Naphthalene	ND		0.0200	1	06/15/2023 18:27	WG2077922
Phenanthrene	ND		0.00600	1	06/15/2023 18:27	WG2077922
Pyrene	ND		0.00600	1	06/15/2023 18:27	WG2077922
1-Methylnaphthalene	ND		0.0200	1	06/15/2023 18:27	WG2077922
2-Methylnaphthalene	ND		0.0200	1	06/15/2023 18:27	WG2077922
2-Chloronaphthalene	ND		0.0200	1	06/15/2023 18:27	WG2077922
(S) p-Terphenyl-d14	*89.6*		*23.0-120*		*06/15/2023 18:27*	WG2077922
(S) Nitrobenzene-d5	*89.6*		*14.0-149*		*06/15/2023 18:27*	WG2077922
(S) 2-Fluorobiphenyl	*88.4*		*34.0-125*		*06/15/2023 18:27*	WG2077922

Mercury by Method 7471B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0400	1	06/19/2023 19:31	WG2079989

Metals (ICP) by Method 6010D

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.74		2.00	1	06/15/2023 17:19	WG2077162
Barium	82.1		0.500	1	06/15/2023 17:19	WG2077162
Cadmium	ND		0.500	1	06/15/2023 17:19	WG2077162
Chromium	9.99		1.00	1	06/15/2023 17:19	WG2077162
Lead	6.41		0.500	1	06/15/2023 17:19	WG2077162
Selenium	ND		2.00	1	06/15/2023 17:19	WG2077162
Silver	ND		1.00	1	06/15/2023 17:19	WG2077162

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	ND		1.61	1.29	06/15/2023 21:48	WG2078598
Acrylonitrile	ND		0.403	1.29	06/15/2023 21:48	WG2078598
Benzene	ND		0.0323	1.29	06/15/2023 21:48	WG2078598
Bromobenzene	ND		0.403	1.29	06/15/2023 21:48	WG2078598
Bromodichloromethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
Bromoform	ND		0.806	1.29	06/15/2023 21:48	WG2078598
Bromomethane	ND		0.403	1.29	06/15/2023 21:48	WG2078598
1,3-Butadiene	ND		0.806	1.29	06/15/2023 21:48	WG2078598
n-Butylbenzene	ND		0.403	1.29	06/15/2023 21:48	WG2078598
sec-Butylbenzene	ND		0.403	1.29	06/15/2023 21:48	WG2078598
tert-Butylbenzene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Carbon disulfide	ND		0.403	1.29	06/15/2023 21:48	WG2078598
Carbon tetrachloride	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Chlorobenzene	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
Chlorodibromomethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
Chloroethane	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Chloroform	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
Chloromethane	ND		0.403	1.29	06/15/2023 21:48	WG2078598
2-Chlorotoluene	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
4-Chlorotoluene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Cyclohexane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
1,2-Dibromo-3-Chloropropane	ND		0.806	1.29	06/15/2023 21:48	WG2078598
1,2-Dibromoethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
Dibromomethane	ND		0.161	1.29	06/15/2023 21:48	WG2078598
1,2-Dichlorobenzene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
1,3-Dichlorobenzene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
1,4-Dichlorobenzene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Dichlorodifluoromethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
1,1-Dichloroethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
1,2-Dichloroethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
1,1-Dichloroethene	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
cis-1,2-Dichloroethene	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
trans-1,2-Dichloroethene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
1,2-Dichloropropane	ND		0.161	1.29	06/15/2023 21:48	WG2078598
1,1-Dichloropropene	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
1,3-Dichloropropane	ND		0.161	1.29	06/15/2023 21:48	WG2078598
cis-1,3-Dichloropropene	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
trans-1,3-Dichloropropene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
2,2-Dichloropropane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Dicyclopentadiene	ND		0.403	1.29	06/15/2023 21:48	WG2078598
Di-isopropyl ether	ND		0.0323	1.29	06/15/2023 21:48	WG2078598
Ethylbenzene	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
4-Ethyltoluene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Hexachloro-1,3-butadiene	ND		0.806	1.29	06/15/2023 21:48	WG2078598
n-Hexane	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Isopropylbenzene	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
p-Isopropyltoluene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
2-Butanone (MEK)	ND		3.23	1.29	06/15/2023 21:48	WG2078598
Methylene Chloride	ND		0.806	1.29	06/15/2023 21:48	WG2078598
4-Methyl-2-pentanone (MIBK)	ND		0.806	1.29	06/15/2023 21:48	WG2078598
Methyl tert-butyl ether	ND		0.0323	1.29	06/15/2023 21:48	WG2078598
Methyl Cyclohexane	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Naphthalene	ND		0.403	1.29	06/15/2023 21:48	WG2078598
Propene	ND		1.61	1.29	06/15/2023 21:48	WG2078598
n-Propylbenzene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Styrene	ND		0.403	1.29	06/15/2023 21:48	WG2078598
1,1,1,2-Tetrachloroethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
1,1,2,2-Tetrachloroethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
1,1,2-Trichlorotrifluoroethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
Tetrachloroethene	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
Toluene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
1,2,3-Trichlorobenzene	ND		0.403	1.29	06/15/2023 21:48	WG2078598
1,2,4-Trichlorobenzene	ND		0.403	1.29	06/15/2023 21:48	WG2078598
1,1,1-Trichloroethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
1,1,2-Trichloroethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
Trichloroethene	ND		0.0323	1.29	06/15/2023 21:48	WG2078598
Trichlorofluoromethane	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
1,2,3-Trichloropropane	ND		0.403	1.29	06/15/2023 21:48	WG2078598
1,2,4-Trimethylbenzene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
1,2,3-Trimethylbenzene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
1,3,5-Trimethylbenzene	ND		0.161	1.29	06/15/2023 21:48	WG2078598
Vinyl chloride	ND		0.0806	1.29	06/15/2023 21:48	WG2078598
Xylenes, Total	ND		0.210	1.29	06/15/2023 21:48	WG2078598
(S) Toluene-d8	*100*		*75.0-131*		*06/15/2023 21:48*	WG2078598
(S) 4-Bromofluorobenzene	*85.6*		*67.0-138*		*06/15/2023 21:48*	WG2078598
(S) 1,2-Dichloroethane-d4	*95.7*		*70.0-130*		*06/15/2023 21:48*	WG2078598

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0340	1	06/14/2023 14:33	WG2077070
PCB 1221	ND		0.0340	1	06/14/2023 14:33	WG2077070
PCB 1232	ND		0.0340	1	06/14/2023 14:33	WG2077070
PCB 1242	ND		0.0340	1	06/14/2023 14:33	WG2077070
PCB 1248	ND		0.0170	1	06/14/2023 14:33	WG2077070
PCB 1254	ND		0.0170	1	06/14/2023 14:33	WG2077070
PCB 1260	ND		0.0170	1	06/14/2023 14:33	WG2077070
(S) Decachlorobiphenyl	*59.4*		*10.0-135*		*06/14/2023 14:33*	WG2077070
(S) Tetrachloro-m-xylene	*74.6*		*10.0-139*		*06/14/2023 14:33*	WG2077070

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Acenaphthene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Acenaphthylene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Benzo(a)anthracene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Benzo(a)pyrene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Benzo(b)fluoranthene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Benzo(g,h,i)perylene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Benzo(k)fluoranthene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Chrysene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Dibenz(a,h)anthracene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Fluoranthene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Fluorene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Naphthalene	ND		0.0200	1	06/15/2023 18:45	WG2077922
Phenanthrene	ND		0.00600	1	06/15/2023 18:45	WG2077922
Pyrene	ND		0.00600	1	06/15/2023 18:45	WG2077922
1-Methylnaphthalene	ND		0.0200	1	06/15/2023 18:45	WG2077922
2-Methylnaphthalene	ND		0.0200	1	06/15/2023 18:45	WG2077922
2-Chloronaphthalene	ND		0.0200	1	06/15/2023 18:45	WG2077922
(S) p-Terphenyl-d14	*84.5*		*23.0-120*		*06/15/2023 18:45*	WG2077922
(S) Nitrobenzene-d5	*87.7*		*14.0-149*		*06/15/2023 18:45*	WG2077922
(S) 2-Fluorobiphenyl	*85.3*		*34.0-125*		*06/15/2023 18:45*	WG2077922

Method Blank (MB)

(MB) R3938569-1 06/19/23 19:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R3938569-2 06/19/23 19:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.446	89.3	80.0-120	

L1624800-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1624800-01 06/19/23 19:07 • (MS) R3938569-3 06/19/23 19:09 • (MSD) R3938569-4 06/19/23 19:11

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.500	ND	0.409	0.453	81.8	90.6	1	75.0-125			10.2	20

Method Blank (MB)

(MB) R3937521-7 06/15/23 23:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Lead	U		0.208	0.500
Selenium	U		0.764	2.00
Silver	U		0.127	1.00

Laboratory Control Sample (LCS)

(LCS) R3937521-8 06/15/23 23:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	95.5	95.5	80.0-120	
Barium	100	98.4	98.4	80.0-120	
Cadmium	100	95.6	95.6	80.0-120	
Chromium	100	94.2	94.2	80.0-120	
Lead	100	92.7	92.7	80.0-120	
Selenium	100	96.0	96.0	80.0-120	
Silver	20.0	18.3	91.3	80.0-120	

L1625445-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1625445-01 06/15/23 16:30 • (MS) R3937521-5 06/15/23 16:38 • (MSD) R3937521-6 06/15/23 16:41

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	3.33	101	98.8	97.6	95.4	1	75.0-125			2.15	20
Barium	100	95.8	173	177	77.5	81.1	1	75.0-125			2.07	20
Cadmium	100	ND	97.7	95.0	97.5	94.9	1	75.0-125			2.74	20
Chromium	100	22.2	112	107	89.9	85.1	1	75.0-125			4.36	20
Lead	100	4.62	98.8	98.3	94.2	93.7	1	75.0-125			0.484	20
Selenium	100	ND	93.9	92.1	93.9	92.1	1	75.0-125			1.93	20

L1625445-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1625445-01 06/15/23 23:15 • (MS) R3937521-11 06/15/23 23:24 • (MSD) R3937521-12 06/15/23 23:27

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Silver	20.0	ND	18.9	18.4	94.6	91.8	1	75.0-125			3.10	20

Method Blank (MB)

(MB) R3938109-3 06/15/23 15:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.913	1.25
Acrylonitrile	U		0.0903	0.313
Benzene	U		0.0117	0.0250
Bromobenzene	U		0.0225	0.313
Bromodichloromethane	U		0.0181	0.0625
Bromoform	U		0.0293	0.625
Bromomethane	U		0.0493	0.313
1,3-Butadiene	U		0.128	0.625
n-Butylbenzene	U		0.131	0.313
sec-Butylbenzene	U		0.0720	0.313
tert-Butylbenzene	U		0.0488	0.125
Carbon disulfide	U		0.0175	0.313
Carbon tetrachloride	U		0.0225	0.125
Chlorobenzene	U		0.00525	0.0625
Chlorodibromomethane	U		0.0153	0.0625
Chloroethane	U		0.0425	0.125
Chloroform	U		0.0258	0.0625
Chloromethane	U		0.109	0.313
2-Chlorotoluene	U		0.0216	0.0625
4-Chlorotoluene	U		0.0113	0.125
Cyclohexane	U		0.0278	0.0625
1,2-Dibromo-3-Chloropropane	U		0.0975	0.625
1,2-Dibromoethane	U		0.0162	0.0625
Dibromomethane	U		0.0188	0.125
1,2-Dichlorobenzene	U		0.0106	0.125
1,3-Dichlorobenzene	U		0.0150	0.125
1,4-Dichlorobenzene	U		0.0175	0.125
Dichlorodifluoromethane	U		0.0403	0.0625
1,1-Dichloroethane	U		0.0123	0.0625
1,2-Dichloroethane	U		0.0162	0.0625
1,1-Dichloroethene	U		0.0152	0.0625
cis-1,2-Dichloroethene	U		0.0184	0.0625
trans-1,2-Dichloroethene	U		0.0260	0.125
1,2-Dichloropropane	U		0.0355	0.125
1,1-Dichloropropene	U		0.0202	0.0625
1,3-Dichloropropane	U		0.0125	0.125
cis-1,3-Dichloropropene	U		0.0189	0.0625
trans-1,3-Dichloropropene	U		0.0285	0.125
2,2-Dichloropropane	U		0.0345	0.0625
Dicyclopentadiene	U		0.0413	0.313

Method Blank (MB)

(MB) R3938109-3 06/15/23 15:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Di-isopropyl ether	U		0.0103	0.0250
Ethylbenzene	U		0.0184	0.0625
4-Ethyltoluene	U		0.0580	0.125
Hexachloro-1,3-butadiene	U		0.150	0.625
n-Hexane	U		0.0565	0.125
Isopropylbenzene	U		0.0106	0.0625
p-Isopropyltoluene	U		0.0638	0.125
2-Butanone (MEK)	U		1.59	2.50
Methylene Chloride	U		0.166	0.625
4-Methyl-2-pentanone (MIBK)	U		0.0570	0.625
Methyl tert-butyl ether	U		0.00875	0.0250
Methyl Cyclohexane	U		0.0515	0.125
Naphthalene	U		0.122	0.313
Propene	U		0.153	1.25
n-Propylbenzene	U		0.0238	0.125
Styrene	U		0.00573	0.313
1,1,1,2-Tetrachloroethane	U		0.0237	0.0625
1,1,2,2-Tetrachloroethane	U		0.0174	0.0625
1,1,2-Trichlorotrifluoroethane	U		0.0189	0.0625
Tetrachloroethene	U		0.0224	0.0625
Toluene	U		0.0325	0.125
1,2,3-Trichlorobenzene	U		0.183	0.313
1,2,4-Trichlorobenzene	U		0.110	0.313
1,1,1-Trichloroethane	U		0.0231	0.0625
1,1,2-Trichloroethane	U		0.0149	0.0625
Trichloroethene	U		0.0146	0.0250
Trichlorofluoromethane	U		0.0207	0.0625
1,2,3-Trichloropropane	U		0.0405	0.313
1,2,4-Trimethylbenzene	U		0.0395	0.125
1,2,3-Trimethylbenzene	U		0.0395	0.125
1,3,5-Trimethylbenzene	U		0.0500	0.125
Vinyl chloride	U		0.0290	0.0625
Xylenes, Total	U		0.0220	0.163
(S) Toluene-d8	*104*			*75.0-131*
(S) 4-Bromofluorobenzene	*89.1*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*92.4*			*70.0-130*

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

(LCS) R3938109-1 06/15/23 14:28 • (LCSD) R3938109-2 06/15/23 14:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.619	0.677	99.0	108	30.0-160			8.95	31
Acrylonitrile	0.625	0.721	0.726	115	116	45.0-153			0.691	22
Benzene	0.125	0.123	0.126	98.4	101	70.0-123			2.41	20
Bromobenzene	0.125	0.119	0.130	95.2	104	73.0-121			8.84	20
Bromodichloromethane	0.125	0.129	0.127	103	102	73.0-121			1.56	20
Bromoform	0.125	0.110	0.111	88.0	88.8	64.0-132			0.905	20
Bromomethane	0.125	0.124	0.118	99.2	94.4	56.0-147			4.96	20
1,3-Butadiene	0.125	0.139	0.133	111	106	32.0-150			4.41	20
n-Butylbenzene	0.125	0.111	0.107	88.8	85.6	68.0-135			3.67	20
sec-Butylbenzene	0.125	0.134	0.134	107	107	74.0-130			0.000	20
tert-Butylbenzene	0.125	0.134	0.137	107	110	75.0-127			2.21	20
Carbon disulfide	0.125	0.120	0.115	96.0	92.0	56.0-133			4.26	20
Carbon tetrachloride	0.125	0.142	0.133	114	106	66.0-128			6.55	20
Chlorobenzene	0.125	0.121	0.119	96.8	95.2	76.0-128			1.67	20
Chlorodibromomethane	0.125	0.118	0.118	94.4	94.4	74.0-127			0.000	20
Chloroethane	0.125	0.129	0.126	103	101	61.0-134			2.35	20
Chloroform	0.125	0.127	0.129	102	103	72.0-123			1.56	20
Chloromethane	0.125	0.129	0.126	103	101	51.0-138			2.35	20
2-Chlorotoluene	0.125	0.123	0.128	98.4	102	75.0-124			3.98	20
4-Chlorotoluene	0.125	0.128	0.133	102	106	75.0-124			3.83	20
Cyclohexane	0.125	0.143	0.136	114	109	70.0-130			5.02	20
1,2-Dibromo-3-Chloropropane	0.125	0.106	0.109	84.8	87.2	59.0-130			2.79	20
1,2-Dibromoethane	0.125	0.123	0.123	98.4	98.4	74.0-128			0.000	20
Dibromomethane	0.125	0.127	0.130	102	104	75.0-122			2.33	20
1,2-Dichlorobenzene	0.125	0.124	0.127	99.2	102	76.0-124			2.39	20
1,3-Dichlorobenzene	0.125	0.124	0.127	99.2	102	76.0-125			2.39	20
1,4-Dichlorobenzene	0.125	0.126	0.124	101	99.2	77.0-121			1.60	20
Dichlorodifluoromethane	0.125	0.108	0.103	86.4	82.4	43.0-156			4.74	20
1,1-Dichloroethane	0.125	0.133	0.127	106	102	70.0-127			4.62	20
1,2-Dichloroethane	0.125	0.121	0.122	96.8	97.6	65.0-131			0.823	20
1,1-Dichloroethene	0.125	0.136	0.131	109	105	65.0-131			3.75	20
cis-1,2-Dichloroethene	0.125	0.136	0.127	109	102	73.0-125			6.84	20
trans-1,2-Dichloroethene	0.125	0.131	0.124	105	99.2	71.0-125			5.49	20
1,2-Dichloropropane	0.125	0.127	0.127	102	102	74.0-125			0.000	20
1,1-Dichloropropene	0.125	0.139	0.138	111	110	73.0-125			0.722	20
1,3-Dichloropropane	0.125	0.127	0.132	102	106	80.0-125			3.86	20
cis-1,3-Dichloropropene	0.125	0.145	0.144	116	115	76.0-127			0.692	20
trans-1,3-Dichloropropene	0.125	0.122	0.122	97.6	97.6	73.0-127			0.000	20
2,2-Dichloropropane	0.125	0.138	0.136	110	109	59.0-135			1.46	20
Dicyclopentadiene	0.125	0.137	0.137	110	110	71.0-132			0.000	20

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

(LCS) R3938109-1 06/15/23 14:28 • (LCSD) R3938109-2 06/15/23 14:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	0.125	0.136	0.130	109	104	60.0-136			4.51	20
Ethylbenzene	0.125	0.125	0.123	100	98.4	74.0-126			1.61	20
4-Ethyltoluene	0.125	0.131	0.130	105	104	71.0-129			0.766	20
Hexachloro-1,3-butadiene	0.125	0.122	0.121	97.6	96.8	57.0-150			0.823	20
n-Hexane	0.125	0.131	0.130	105	104	55.0-137			0.766	20
Isopropylbenzene	0.125	0.126	0.121	101	96.8	72.0-127			4.05	20
p-Isopropyltoluene	0.125	0.137	0.135	110	108	72.0-133			1.47	20
2-Butanone (MEK)	0.625	0.706	0.593	113	94.9	30.0-160			17.4	24
Methylene Chloride	0.125	0.122	0.114	97.6	91.2	68.0-123			6.78	20
4-Methyl-2-pentanone (MIBK)	0.625	0.709	0.735	113	118	56.0-143			3.60	20
Methyl tert-butyl ether	0.125	0.136	0.128	109	102	66.0-132			6.06	20
Methyl Cyclohexane	0.125	0.123	0.122	98.4	97.6	67.0-129			0.816	20
Naphthalene	0.125	0.0933	0.0923	74.6	73.8	59.0-130			1.08	20
Propene	0.125	0.0805	0.0823	64.4	65.8	30.0-160			2.21	20
n-Propylbenzene	0.125	0.135	0.133	108	106	74.0-126			1.49	20
Styrene	0.125	0.104	0.103	83.2	82.4	72.0-127			0.966	20
1,1,1,2-Tetrachloroethane	0.125	0.120	0.115	96.0	92.0	74.0-129			4.26	20
1,1,2,2-Tetrachloroethane	0.125	0.129	0.131	103	105	68.0-128			1.54	20
1,1,2-Trichlorotrifluoroethane	0.125	0.128	0.122	102	97.6	61.0-139			4.80	20
Tetrachloroethene	0.125	0.124	0.124	99.2	99.2	70.0-136			0.000	20
Toluene	0.125	0.122	0.122	97.6	97.6	75.0-121			0.000	20
1,2,3-Trichlorobenzene	0.125	0.124	0.118	99.2	94.4	59.0-139			4.96	20
1,2,4-Trichlorobenzene	0.125	0.108	0.103	86.4	82.4	62.0-137			4.74	20
1,1,1-Trichloroethane	0.125	0.131	0.127	105	102	69.0-126			3.10	20
1,1,2-Trichloroethane	0.125	0.126	0.127	101	102	78.0-123			0.791	20
Trichloroethene	0.125	0.126	0.124	101	99.2	76.0-126			1.60	20
Trichlorofluoromethane	0.125	0.126	0.119	101	95.2	61.0-142			5.71	20
1,2,3-Trichloropropane	0.125	0.121	0.125	96.8	100	67.0-129			3.25	20
1,2,4-Trimethylbenzene	0.125	0.115	0.117	92.0	93.6	70.0-126			1.72	20
1,2,3-Trimethylbenzene	0.125	0.125	0.126	100	101	74.0-124			0.797	20
1,3,5-Trimethylbenzene	0.125	0.125	0.122	100	97.6	73.0-127			2.43	20
Vinyl chloride	0.125	0.136	0.127	109	102	63.0-134			6.84	20
Xylenes, Total	0.375	0.358	0.370	95.5	98.7	72.0-127			3.30	20
(S) Toluene-d8				*101*	*99.8*	*75.0-131*				
(S) 4-Bromofluorobenzene				*99.2*	*96.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*102*	*102*	*70.0-130*				

L1624762-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1624762-02 06/15/23 22:27 • (MS) R3938109-4 06/15/23 23:26 • (MSD) R3938109-5 06/16/23 00:49

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.585	ND	ND	ND	35.1	57.7	1	10.0-160		R5	48.8	40
Acrylonitrile	0.585	ND	0.375	0.517	65.8	90.7	1	10.0-160			31.8	40
Benzene	0.117	ND	0.0847	0.0785	74.3	68.9	1	10.0-149			7.60	37
Bromobenzene	0.117	ND	ND	ND	85.4	62.8	1	10.0-156			30.5	38
Bromodichloromethane	0.117	ND	0.0915	0.0814	80.3	71.4	1	10.0-143			11.7	37
Bromoform	0.117	ND	ND	ND	71.4	66.8	1	10.0-146			6.73	36
Bromomethane	0.117	ND	ND	ND	46.5	43.7	1	10.0-149			6.23	38
1,3-Butadiene	0.117	ND	ND	ND	0.000	63.4	1	10.0-137	M2	R5	200	36
n-Butylbenzene	0.117	ND	ND	ND	59.2	53.6	1	10.0-160			9.95	40
sec-Butylbenzene	0.117	ND	ND	ND	68.4	63.4	1	10.0-159			7.58	39
tert-Butylbenzene	0.117	ND	ND	ND	76.0	64.7	1	10.0-156			16.0	39
Carbon disulfide	0.117	ND	ND	ND	43.2	48.9	1	10.0-145			12.6	39
Carbon tetrachloride	0.117	ND	ND	ND	50.4	61.8	1	10.0-145			20.5	37
Chlorobenzene	0.117	ND	0.0907	0.0783	79.6	68.7	1	10.0-152			14.7	39
Chlorodibromomethane	0.117	ND	0.0929	0.0812	81.5	71.2	1	10.0-146			13.4	37
Chloroethane	0.117	ND	ND	ND	0.000	0.000	1	10.0-146	M2	M2	0.000	40
Chloroform	0.117	ND	0.0832	0.0758	73.0	66.5	1	10.0-146			9.31	37
Chloromethane	0.117	ND	ND	ND	54.8	57.1	1	10.0-159			4.08	37
2-Chlorotoluene	0.117	ND	0.0924	0.0690	81.1	60.5	1	10.0-159			29.0	38
4-Chlorotoluene	0.117	ND	ND	ND	83.8	58.9	1	10.0-155			34.9	39
Cyclohexane	0.117	ND	ND	0.0788	40.8	69.1	1	10.0-157		R5	51.6	32
1,2-Dibromo-3-Chloropropane	0.117	ND	ND	ND	67.4	59.9	1	10.0-151			11.7	39
1,2-Dibromoethane	0.117	ND	0.108	0.0920	94.7	80.7	1	10.0-148			16.0	34
Dibromomethane	0.117	ND	ND	ND	81.8	75.5	1	10.0-147			8.03	35
1,2-Dichlorobenzene	0.117	ND	ND	ND	88.6	67.0	1	10.0-155			27.7	37
1,3-Dichlorobenzene	0.117	ND	ND	ND	84.7	63.3	1	10.0-153			28.9	38
1,4-Dichlorobenzene	0.117	ND	ND	ND	84.7	64.7	1	10.0-151			26.8	38
Dichlorodifluoromethane	0.117	ND	ND	ND	0.000	53.2	1	10.0-160	M2	R5	200	35
1,1-Dichloroethane	0.117	ND	0.0774	0.0737	67.9	64.6	1	10.0-147			4.90	37
1,2-Dichloroethane	0.117	ND	0.0910	0.0870	79.8	76.3	1	10.0-148			4.49	35
1,1-Dichloroethene	0.117	ND	ND	0.0662	49.0	58.1	1	10.0-155			16.9	37
cis-1,2-Dichloroethene	0.117	ND	0.0841	0.0781	73.8	68.5	1	10.0-149			7.40	37
trans-1,2-Dichloroethene	0.117	ND	ND	ND	60.0	60.4	1	10.0-150			0.583	37
1,2-Dichloropropane	0.117	ND	ND	ND	86.1	72.4	1	10.0-148			17.4	37
1,1-Dichloropropene	0.117	ND	0.0687	0.0828	60.3	72.6	1	10.0-153			18.6	35
1,3-Dichloropropane	0.117	ND	ND	ND	98.2	85.3	1	10.0-154			14.1	35
cis-1,3-Dichloropropene	0.117	ND	0.114	0.100	100	87.7	1	10.0-151			13.1	37
trans-1,3-Dichloropropene	0.117	ND	ND	ND	98.2	80.5	1	10.0-148			19.8	37
2,2-Dichloropropane	0.117	ND	ND	0.0647	53.3	56.8	1	10.0-138			6.22	36
Dicyclopentadiene	0.117	ND	ND	ND	75.8	63.6	1	12.0-152			17.5	34

L1624762-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1624762-02 06/15/23 22:27 • (MS) R3938109-4 06/15/23 23:26 • (MSD) R3938109-5 06/16/23 00:49

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	0.117	ND	0.0957	0.0869	83.9	76.2	1	10.0-147			9.64	36
Ethylbenzene	0.117	ND	0.0794	0.0756	69.6	66.3	1	10.0-160			4.90	38
4-Ethyltoluene	0.117	ND	ND	ND	73.3	61.1	1	10.0-156			18.3	32
Hexachloro-1,3-butadiene	0.117	ND	ND	ND	63.8	69.8	1	10.0-160			9.06	40
n-Hexane	0.117	ND	ND	ND	40.0	61.4	1	10.0-157		R5	42.2	37
Isopropylbenzene	0.117	ND	0.0751	0.0801	65.9	70.3	1	10.0-155			6.44	38
p-Isopropyltoluene	0.117	ND	ND	ND	72.9	64.9	1	10.0-160			11.6	40
2-Butanone (MEK)	0.585	ND	ND	ND	77.4	93.3	1	10.0-160			18.7	40
Methylene Chloride	0.117	ND	ND	ND	67.4	62.8	1	10.0-141			7.01	37
4-Methyl-2-pentanone (MIBK)	0.585	ND	ND	ND	98.1	92.3	1	10.0-160			6.08	35
Methyl tert-butyl ether	0.117	ND	0.0872	0.0874	76.5	76.7	1	11.0-147			0.229	35
Methyl Cyclohexane	0.117	ND	ND	ND	0.000	65.4	1	10.0-160	M2	R5	200	33
Naphthalene	0.117	ND	ND	ND	69.8	54.3	1	10.0-160			25.0	36
Propene	0.117	ND	ND	ND	23.9	39.0	1	10.0-160		R5	47.9	35
n-Propylbenzene	0.117	ND	ND	ND	73.1	59.3	1	10.0-158			20.8	38
Styrene	0.117	ND	ND	ND	66.1	56.0	1	10.0-160			16.5	40
1,1,1,2-Tetrachloroethane	0.117	ND	0.0872	0.0784	76.5	68.8	1	10.0-149			10.6	39
1,1,2,2-Tetrachloroethane	0.117	ND	0.0732	ND	64.2	45.6	1	10.0-160			33.9	35
1,1,2-Trichlorotrifluoroethane	0.117	ND	ND	0.0658	32.5	57.7	1	10.0-160		R5	55.8	36
Tetrachloroethene	0.117	ND	0.0737	0.0817	64.6	71.7	1	10.0-156			10.3	39
Toluene	0.117	ND	ND	ND	74.1	66.4	1	10.0-156			11.0	38
1,2,3-Trichlorobenzene	0.117	ND	ND	ND	84.4	65.7	1	10.0-160			24.9	40
1,2,4-Trichlorobenzene	0.117	ND	ND	ND	75.2	61.8	1	10.0-160			19.5	40
1,1,1-Trichloroethane	0.117	ND	0.0630	0.0728	55.3	63.9	1	10.0-144			14.4	35
1,1,2-Trichloroethane	0.117	ND	0.109	0.0952	95.6	83.5	1	10.0-160			13.5	35
Trichloroethene	0.117	ND	0.106	0.107	93.0	93.9	1	10.0-156			0.939	38
Trichlorofluoromethane	0.117	ND	ND	ND	25.1	37.0	1	10.0-160			38.4	40
1,2,3-Trichloropropane	0.117	ND	ND	ND	89.5	75.4	1	10.0-156			17.1	35
1,2,4-Trimethylbenzene	0.117	ND	ND	ND	71.2	54.7	1	10.0-160			26.2	36
1,2,3-Trimethylbenzene	0.117	ND	ND	ND	83.9	61.9	1	10.0-160			30.1	36
1,3,5-Trimethylbenzene	0.117	ND	ND	ND	75.2	58.8	1	10.0-160			24.5	38
Vinyl chloride	0.117	ND	ND	0.0696	52.1	61.1	1	10.0-160			15.8	37
Xylenes, Total	0.350	ND	0.225	0.228	65.8	66.7	1	10.0-160			1.32	38
(S) Toluene-d8					*101*	*101*		*75.0-131*				
(S) 4-Bromofluorobenzene					*91.9*	*88.8*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*96.8*	*98.3*		*70.0-130*				

Method Blank (MB)

(MB) R3936606-1 06/14/23 11:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.0118	0.0340
PCB 1221	U		0.0118	0.0340
PCB 1232	U		0.0118	0.0340
PCB 1242	U		0.0118	0.0340
PCB 1248	U		0.00738	0.0170
PCB 1254	U		0.00738	0.0170
PCB 1260	U		0.00738	0.0170
(S) Decachlorobiphenyl	*91.4*			*10.0-135*
(S) Tetrachloro-m-xylene	*92.3*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R3936606-2 06/14/23 11:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1016	0.167	0.129	77.2	36.0-141	
PCB 1260	0.167	0.165	98.8	37.0-145	
(S) Decachlorobiphenyl			*96.1*	*10.0-135*	
(S) Tetrachloro-m-xylene			*98.8*	*10.0-139*	

L1625445-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1625445-01 06/14/23 14:44 • (MS) R3936606-3 06/14/23 14:54 • (MSD) R3936606-4 06/14/23 15:05

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
PCB 1016	0.166	ND	0.121	0.119	72.9	73.9	1	10.0-160			1.67	37
PCB 1260	0.166	ND	0.132	0.135	79.5	83.9	1	10.0-160			2.25	38
(S) Decachlorobiphenyl					*81.6*	*86.0*		*10.0-135*				
(S) Tetrachloro-m-xylene					*91.9*	*90.7*		*10.0-139*				

L1625446-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1625446-01 06/14/23 15:15 • (MS) R3936606-5 06/14/23 15:26 • (MSD) R3936606-6 06/14/23 15:36

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
PCB 1016	0.166	ND	0.0624	0.0680	37.6	42.0	1	10.0-160			8.59	37
PCB 1260	0.166	ND	0.0937	0.103	56.4	63.6	1	10.0-160			9.46	38
(S) Decachlorobiphenyl					*57.9*	*64.4*		*10.0-135*				
(S) Tetrachloro-m-xylene					*63.8*	*69.0*		*10.0-139*				

Method Blank (MB)

(MB) R3937450-2 06/15/23 16:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) p-Terphenyl-d14	*87.6*			*23.0-120*
(S) Nitrobenzene-d5	*84.4*			*14.0-149*
(S) 2-Fluorobiphenyl	*84.2*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R3937450-1 06/15/23 16:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0743	92.9	50.0-126	
Acenaphthene	0.0800	0.0704	88.0	50.0-120	
Acenaphthylene	0.0800	0.0719	89.9	50.0-120	
Benzo(a)anthracene	0.0800	0.0773	96.6	45.0-120	
Benzo(a)pyrene	0.0800	0.0732	91.5	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0719	89.9	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0683	85.4	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0691	86.4	49.0-125	
Chrysene	0.0800	0.0743	92.9	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0710	88.8	47.0-125	
Fluoranthene	0.0800	0.0776	97.0	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3937450-1 06/15/23 16:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0738	92.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0762	95.3	46.0-125	
Naphthalene	0.0800	0.0652	81.5	50.0-120	
Phenanthrene	0.0800	0.0695	86.9	47.0-120	
Pyrene	0.0800	0.0740	92.5	43.0-123	
1-Methylnaphthalene	0.0800	0.0661	82.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0698	87.3	50.0-120	
2-Chloronaphthalene	0.0800	0.0685	85.6	50.0-120	
(S) p-Terphenyl-d14			*81.3*	*23.0-120*	
(S) Nitrobenzene-d5			*87.4*	*14.0-149*	
(S) 2-Fluorobiphenyl			*83.1*	*34.0-125*	

L1625747-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1625747-01 06/15/23 22:55 • (MS) R3937450-3 06/15/23 23:13 • (MSD) R3937450-4 06/15/23 23:31

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0788	0.0157	0.185	0.0851	215	87.6	1	10.0-145	M1	R5	74.0	30
Acenaphthene	0.0788	0.0127	0.0985	0.0726	109	75.6	1	14.0-127		R5	30.3	27
Acenaphthylene	0.0788	ND	0.0865	0.0751	106	91.1	1	21.0-124			14.1	25
Benzo(a)anthracene	0.0788	0.0481	0.378	0.0974	419	62.2	1	10.0-139	M1	R5	118	30
Benzo(a)pyrene	0.0788	0.0484	0.329	0.0909	356	53.7	1	10.0-141	M1	R5	113	31
Benzo(b)fluoranthene	0.0788	0.0495	0.287	0.0762	301	33.7	1	10.0-140	M1	R5	116	36
Benzo(g,h,i)perylene	0.0788	0.0380	0.177	0.0860	176	60.6	1	10.0-140	M1	R5	69.2	33
Benzo(k)fluoranthene	0.0788	0.0187	0.170	0.0618	192	54.4	1	10.0-137	M1	R5	93.4	31
Chrysene	0.0788	0.0586	0.365	0.0981	389	49.9	1	10.0-145	M1	R5	115	30
Dibenz(a,h)anthracene	0.0788	0.00696	0.0913	0.0551	107	60.8	1	10.0-132		R5	49.5	31
Fluoranthene	0.0788	0.112	0.736	0.119	792	8.84	1	10.0-153	M1	M2 R5	144	33
Fluorene	0.0788	0.0112	0.120	0.0769	138	83.0	1	11.0-130	M1	R5	43.8	29
Indeno(1,2,3-cd)pyrene	0.0788	0.0356	0.220	0.0776	234	53.0	1	10.0-137	M1	R5	95.7	32
Naphthalene	0.0788	ND	0.0739	0.0707	93.8	89.3	1	10.0-135			4.43	27
Phenanthrene	0.0788	0.0722	0.381	0.0908	392	23.5	1	10.0-144	M1	R5	123	31
Pyrene	0.0788	0.101	0.596	0.117	628	20.2	1	10.0-148	M1	R5	134	35
1-Methylnaphthalene	0.0788	ND	0.0738	0.0677	93.7	85.5	1	10.0-142			8.62	28
2-Methylnaphthalene	0.0788	ND	0.0778	0.0732	91.9	85.7	1	10.0-137			6.09	28
2-Chloronaphthalene	0.0788	ND	0.0717	0.0646	91.0	81.6	1	29.0-120			10.4	24
(S) p-Terphenyl-d14					*87.7*	*67.7*		*23.0-120*				
(S) Nitrobenzene-d5					*91.0*	*96.0*		*14.0-149*				
(S) 2-Fluorobiphenyl					*84.7*	*78.6*		*34.0-125*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS37 • File ID: 0615_16

06/15/23 14:28

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0615_16	1130939	464668.40	417417.10
Upper Limit		2261878	929337	834834
Lower Limit		565470	232334	208709
LCS R3938109-1 WG2078598 1x	0615_16LCS	1130939	464668.40	417417.10
LCSD R3938109-2 WG2078598 1x	0615_17	1180235	476121.80	419263.10
BLANK R3938109-3 WG2078598 1x	0615_20	1313403	499101.10	406192.30
L1625430-01 WG2078598 1.83x	0615_30	1266023	507532.40	383925.30
L1625430-05 WG2078598 1x	0615_31	1249904	486404.60	377314.70
L1625430-06 WG2078598 1x	0615_32	1249232	472372.70	355502.40
L1625430-07 WG2078598 1.36x	0615_33	1239088	462646.50	365079.70
L1625430-08 WG2078598 1.06x	0615_34	1289656	506381.80	416735.30
L1625430-09 WG2078598 1.55x	0615_35	1279834	506443.90	365673.90
L1625430-10 WG2078598 1.29x	0615_36	1273879	496266.20	387383.70
MS R3938109-4 WG2078598 1x	0615_41	1294696	515586.30	433833.90
MSD R3938109-5 WG2078598 1x	0615_42	1335442	526405.80	496857.60

INTERNAL STANDARD SUMMARY

Instrument: SVGC18 • File ID: AVG

Sample ID	File ID	1-BROMO-2-NITROBENZENE Response
Standard	AVG	27122621
Upper Limit		41945400
Lower Limit		13981800
BLANK R3936606-1 WG2077070 1x	0614_09	29096810
LCS R3936606-2 WG2077070 1x	0614_10	27467180
L1625430-08 WG2077070 1x	0614_25	28045640
L1625430-09 WG2077070 1x	0614_26	29077340
L1625430-10 WG2077070 1x	0614_27	29078830
MS R3936606-3 WG2077070 1x	0614_29	29952480
MSD R3936606-4 WG2077070 1x	0614_30	30283010
MS R3936606-5 WG2077070 1x	0614_32	29728110
MSD R3936606-6 WG2077070 1x	0614_33	29412360

INTERNAL STANDARD SUMMARY

Instrument: BNAMS25 • File ID: 0615_05

06/15/23 14:53

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	0615_05	41467	23208	43111	39137	35627
Upper Limit		82934	46416	86222	78274	71254
Lower Limit		20734	11604	21556	19569	17814
LCS R3937450-1 WG2077922 1x	0615_11	42092	22882	42436	37672	31549
BLANK R3937450-2 WG2077922 1x	0615_12	41465	22558	41526	36082	30036
L1625430-05 WG2077922 1x	0615_13	43124	23486	43116	37548	30832
L1625430-06 WG2077922 1x	0615_14	40556	21999	40302	39839	34473
L1625430-07 WG2077922 1x	0615_15	41570	23371	45241	41009	32736
L1625430-08 WG2077922 1x	0615_16	40402	22369	41570	36113	29961
L1625430-09 WG2077922 1x	0615_17	41543	22667	41751	36366	30357
L1625430-10 WG2077922 1x	0615_18	41436	22627	41703	36264	29593
L1625430-01 WG2077922 1x	0615_26	44042	24387	44742	39549	33329
MS R3937450-3 WG2077922 1x	0615_33	43125	24790	47398	46434	47730
MSD R3937450-4 WG2077922 1x	0615_34	45726	26211	49849	48843	51184

Guide to Reading and Understanding Your Laboratory Report

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

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Terracon
355 S. Euclid Ste 107
Tucson AZ 85719

Billing Information:

Report to: Derek Sremac

Email To: Derek.Sremac@Terracon.com

Project Description: City of Tucson Container Maintenance Compound

City/State Collected: Tucson, AZ

Phone: 5207701789
Fax:

Client Project # 63227145A

Lab Project #

Collected by (print): Breane Quesada

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed 6/19/2023

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1625430

Table H184

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAHs 8270 SIM	VOCs 8260B	RCRA Metals (Cold Hg)	PCBs 8082	Rad	Remarks	Sample # (lab only)
SS-1-5	Grab	SS	5	6/12/23	813	2	X	X					-01
SS-1-10			10		820		HOLD						-02
SS-1-15			15		826		HOLD						-03
SS-1-20			20		833		HOLD						-04
SS-1-25			25		842		X	X					-05
SS-2-4			4		806		X	X					-06
SS-3-6			6		825	✓	X	X					-07
SS-4-4			4		909	4	X	X	X	X			-08
SS-5-4			4		920	✓3a	X	X	X	X			-09
SS-6-4	✓	✓	4	✓	1010	✓3a	X	X	X	X			-10

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

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

Tracking # 5528 5946 7083

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	6/12/23	1230	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			18

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

Temp: 0346 °C Bottles Received:
4.1 to 4.1

Date: 6/13/23 Time: 0915

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

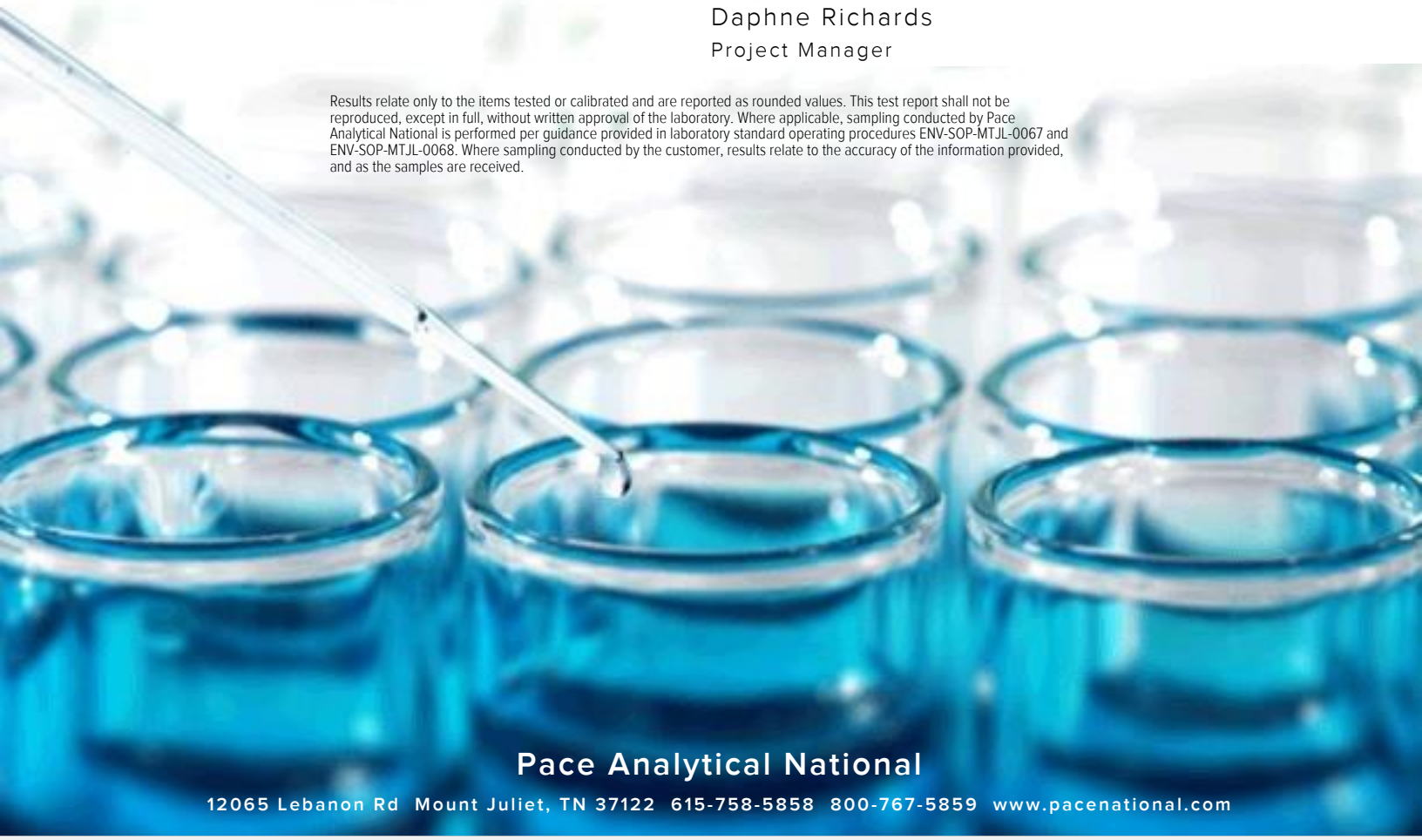
June 19, 2023

Terracon - Tucson, AZ

Sample Delivery Group:	L1625266
Samples Received:	06/13/2023
Project Number:	63227145A
Description:	City of Tucson Container Maintenance Compound
Site:	CITY OF TUCSON CONTAINER MAINT
Report To:	Breana Quesada 355 South Euclid, Ste 107 Tucson, AZ 85719

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

SAMPLE SUMMARY

SG-1 L1625266-01 Air

Collected by: Breana Quesada
Collected date/time: 06/12/23 11:10
Received date/time: 06/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2077406	1	06/14/23 12:41	06/14/23 12:41	JAP	Mt. Juliet, TN

CASE NARRATIVE

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

Daphne Richards
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	0.200	0.639	0.598	1.91		1	WG2077406
Chloroethane	75-00-3	64.50	0.200	0.528	0.200	0.528		1	WG2077406
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2077406
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2077406
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2077406
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.253	1.24		1	WG2077406
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2077406
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2077406
Toluene	108-88-3	92.10	0.500	1.88	3.27	12.3		1	WG2077406
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.371	1.82		1	WG2077406
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2077406
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2077406
m&p-Xylene	1330-20-7	106	0.400	1.73	0.563	2.44		1	WG2077406
o-Xylene	95-47-6	106	0.200	0.867	0.327	1.42		1	WG2077406
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2077406
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2077406
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2077406
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2077406
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2077406
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*96.0*				WG2077406

Method Blank (MB)

(MB) R3938225-3 06/14/23 11:13

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0715	0.200
Chloroethane	U		0.0996	0.200
1,2-Dichloroethane	U		0.0700	0.200
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Isopropylbenzene	U		0.0777	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
Toluene	U		0.0870	0.500
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
Tetrachloroethylene	U		0.0814	0.200
Trichloroethylene	U		0.0680	0.200
Vinyl chloride	U		0.0949	0.200
(S) 1,4-Bromofluorobenzene	*93.0*			*60.0-140*

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

(LCS) R3938225-1 06/14/23 10:15 • (LCSD) R3938225-2 06/14/23 10:45

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	3.75	3.78	3.82	101	102	70.0-130			1.05	25
Chloroethane	3.75	3.69	3.83	98.4	102	70.0-130			3.72	25
1,2-Dichloroethane	3.75	3.73	3.68	99.5	98.1	70.0-130			1.35	25
Ethylbenzene	3.75	3.81	3.75	102	100	70.0-130			1.59	25
4-Ethyltoluene	3.75	4.05	3.97	108	106	70.0-130			2.00	25
Isopropylbenzene	3.75	3.86	3.74	103	99.7	70.0-130			3.16	25
MTBE	3.75	3.63	3.66	96.8	97.6	70.0-130			0.823	25
Naphthalene	3.75	4.40	4.35	117	116	70.0-159			1.14	25
Toluene	3.75	3.94	3.89	105	104	70.0-130			1.28	25
1,2,4-Trimethylbenzene	3.75	4.15	3.98	111	106	70.0-130			4.18	25
1,3,5-Trimethylbenzene	3.75	4.09	3.99	109	106	70.0-130			2.48	25
2,2,4-Trimethylpentane	3.75	3.77	3.77	101	101	70.0-130			0.000	25
m&p-Xylene	7.50	7.86	7.66	105	102	70.0-130			2.58	25

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

(LCS) R3938225-1 06/14/23 10:15 • (LCSD) R3938225-2 06/14/23 10:45

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
o-Xylene	3.75	4.04	3.96	108	106	70.0-130			2.00	25
cis-1,2-Dichloroethene	3.75	3.84	3.78	102	101	70.0-130			1.57	25
trans-1,2-Dichloroethene	3.75	3.81	3.85	102	103	70.0-130			1.04	25
Tetrachloroethylene	3.75	3.83	3.84	102	102	70.0-130			0.261	25
Trichloroethylene	3.75	3.76	3.77	100	101	70.0-130			0.266	25
Vinyl chloride	3.75	3.73	3.65	99.5	97.3	70.0-130			2.17	25
(S) 1,4-Bromofluorobenzene				*102*	*99.9*	*60.0-140*				

INTERNAL STANDARD SUMMARY

Instrument: AIRMS18 • File ID: 0614_01

06/14/23 09:46

Sample ID	File ID	BROMOCHLOROMETHANE	1,4-DIFLUOROBENZENE	CHLOROBENZENE-D5
		Response	Response	Response
Standard	0614_01	29329	111708	88592
Upper Limit		44189	169723	134620
Lower Limit		18938	72738	57694
LCS R3938225-1 WG2077406 1x	0614_02	29540	112342	88050
LCSD R3938225-2 WG2077406 1x	0614_03	29583	114020	90361
BLANK R3938225-3 WG2077406 1x	0614_04	29090	110616	86474
L1625266-01 WG2077406 1x	0614_05	28119	107478	87770

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Terracon - Tucson, AZ

355 South Euclid, Ste 107
Tucson, AZ 85719

Billing Information:
Accounts Payable
355 South Euclid, Ste 107
Tucson, AZ 85719

Report To:
Breana Quesada

Email To:
Breana.Quesada@terracon.com;derek.sizemore@terracon.com

Project Description: City of Tucson Container Maintenance Compound

City/State Collected: Tucson, AZ

Please Circle: PT MT CT ET

Phone: **520-770-1789**

Client Project # **63227145A**

Lab Project # **TERRTUAZ-63227145A**

Collected by (print): Breana Quesada

Site/Facility ID # **CITY OF TUCSON CONTA**

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Three Day
___ Next Day X Five Day
___ Two Day

Date Results Needed: 6/19/2023

Sample ID	Can #	Flow Cont. #	Collection Date	Collection Time	Canister Pressure/Vacuum Initial	Canister Pressure/Vacuum Final	Analysis: TO-15 Summa Petroleum related VOCs	Rem./Contaminant	Sample # (lab only)
SG-1	02024	11498	6/12/23	1110	25	3	X		-01

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N
If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

Remarks:

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE
MT JULIET, TN
12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1625266
1233

Acctnum: TERRTUAZ
Template: T229784
Prelogin: P997729
PM: 288 - Daphne Richards
PB: CR 05/23/23
Shipped Via: FedEX Ground

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	6/12/23	1200	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

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

Tracking #

Date: Time:

Date: Time:

Date: 6/13/23 Time: 0915

Hold #

Condition: (lab use only) OK

COC Seal Intact: ___ Y ___ N ✓ NA

NCF:

APPENDIX E – EPA VISL OUTPUT

Resident Air Inputs

Variable	Resident Air Default Value	Site-Specific Value
AF_{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF_{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.03
ED_{res} (exposure duration) years	26	26
ED_{0-2} (mutagenic exposure duration first phase) years	2	2
ED_{2-6} (mutagenic exposure duration second phase) years	4	4
ED_{6-16} (mutagenic exposure duration third phase) years	10	10
ED_{16-26} (mutagenic exposure duration fourth phase) years	10	10
EF_{res} (exposure frequency) days/year	350	350
EF_{0-2} (mutagenic exposure frequency first phase) days/year	350	350
EF_{2-6} (mutagenic exposure frequency second phase) days/year	350	350
EF_{6-16} (mutagenic exposure frequency third phase) days/year	350	350
EF_{16-26} (mutagenic exposure frequency fourth phase) days/year	350	350
ET_{res} (exposure time) hours/day	24	24
ET_{0-2} (mutagenic exposure time first phase) hours/day	24	24
ET_{2-6} (mutagenic exposure time second phase) hours/day	24	24
ET_{6-16} (mutagenic exposure time third phase) hours/day	24	24
ET_{16-26} (mutagenic exposure time fourth phase) hours/day	24	24
THQ (target hazard quotient) unitless	0.1	0.1
LT (lifetime) years	70	70
TR (target risk) unitless	1.0E-06	1.0E-06

Resident Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ($C_{vp} > C_{i,a}$,Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ($C_{hc} > C_{i,a}$,Target?)	Target Indoor Air Concentration (TCR=1E-06 or THQ=0.1) MIN($C_{ia,c}$,$C_{ia,nc}$) ($\mu g/m^3$)	Toxicity Basis	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=0.1) C_{sg},Target ($\mu g/m^3$)	Target Groundwater Concentration (TCR=1E-06 or THQ=0.1) C_{gw},Target ($\mu g/L$)
Benzene	71-43-2	Yes	Yes	Yes	Yes	3.60E-01	CA	1.20E+01	1.59E+00
Cumene	98-82-8	Yes	Yes	Yes	Yes	4.17E+01	NC	1.39E+03	8.87E+01
Ethyl Chloride	75-00-3	Yes	Yes	Yes	Yes	4.17E+02	NC	1.39E+04	9.19E+02
Toluene	108-88-3	Yes	Yes	Yes	Yes	5.21E+02	NC	1.74E+04	1.92E+03
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	6.26E+00	NC	2.09E+02	2.48E+01
Xylene, m-	108-38-3	Yes	Yes	Yes	Yes	1.04E+01	NC	3.48E+02	3.55E+01
Xylene, o-	95-47-6	Yes	Yes	Yes	Yes	1.04E+01	NC	3.48E+02	4.92E+01
Xylene, p-	106-42-3	Yes	Yes	Yes	Yes	1.04E+01	NC	3.48E+02	3.70E+01

Resident Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Is Target Groundwater Concentration < MCL? (C_{gw} < MCL?)	Pure Phase Vapor Concentration C_{vp} (25 °C) (µg/m³)	Maximum Groundwater Vapor Concentration C_{hc} (µg/m³)	Temperature for Maximum Groundwater Vapor Concentration (°C)	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m³)$^{-1}$	IUR Ref	RfC (mg/m³)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 $C_{ia,c}$ (µg/m³)	Noncarcinogenic VISL THQ=0.1 $C_{ia,nc}$ (µg/m³)
Yes (5)	3.98E+08	4.06E+08	25	1.20	U	7.80E-06	U	3.00E-02	U	No	3.60E-01	3.13E+00
--	2.91E+07	2.88E+07	25	0.90	U	-		4.00E-01	U	No	-	4.17E+01
--	3.50E+09	3.05E+09	25	3.80	U	-		4.00E+00	U	No	-	4.17E+02
No (1000)	1.41E+08	1.43E+08	25	1.10	U	-		5.00E+00	U	No	-	5.21E+02
--	1.36E+07	1.44E+07	25	0.90	U	-		6.00E-02	U	No	-	6.26E+00
--	4.73E+07	4.73E+07	25	1.10	U	-		1.00E-01	U	No	-	1.04E+01
--	3.77E+07	3.77E+07	25	0.90	U	-		1.00E-01	U	No	-	1.04E+01
--	5.05E+07	4.57E+07	25	1.10	U	-		1.00E-01	U	No	-	1.04E+01

Chemical Properties

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref	MCL (ug/L)	HLC (atm-m³/mole)	Henry's Law Constant (unitless)	H` and HLC Ref
Benzene	71-43-2	Yes	Yes	78.12	U	9.48E+01	U	1.79E+03	U	5	5.55E-03	2.27E-01	U
Cumene	98-82-8	Yes	Yes	120.20	U	4.50E+00	U	6.13E+01	U	-	1.15E-02	4.70E-01	U
Ethyl Chloride	75-00-3	Yes	Yes	64.52	U	1.01E+03	U	6.71E+03	U	-	1.11E-02	4.54E-01	U
Toluene	108-88-3	Yes	Yes	92.14	U	2.84E+01	U	5.26E+02	U	1000	6.64E-03	2.71E-01	U
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.20	U	2.10E+00	U	5.70E+01	U	-	6.16E-03	2.52E-01	U
Xylene, m-	108-38-3	Yes	Yes	106.17	U	8.29E+00	U	1.61E+02	U	-	7.18E-03	2.94E-01	U
Xylene, o-	95-47-6	Yes	Yes	106.17	U	6.61E+00	U	1.78E+02	U	-	5.18E-03	2.12E-01	U
Xylene, p-	106-42-3	Yes	Yes	106.17	U	8.84E+00	U	1.62E+02	U	-	6.90E-03	2.82E-01	U

Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$ (cal/mol)	$\Delta H_{v,b}$ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
2.27E-01	353.15	U	5.62E+02	U	7340.00	U	1.20	U
4.70E-01	425.15	U	6.31E+02	U	10300.00	U	0.90	U
4.54E-01	285.45	U	4.60E+02	U	5890.00	U	3.80	U
2.71E-01	384.15	U	5.92E+02	U	7930.00	U	1.10	U
2.52E-01	442.15	U	6.49E+02	U	9370.00	U	0.90	U
2.94E-01	412.15	U	6.17E+02	U	8520.00	U	1.10	U
2.12E-01	417.15	U	6.30E+02	U	8660.00	U	0.90	U
2.82E-01	411.15	U	6.16E+02	U	8530.00	U	1.10	U

Commercial Air Inputs

Variable	Commercial Air Default Value	Site-Specific Value
AF_{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF_{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.03
AT_{com} (averaging time - composite worker)	365	365
ED_{com} (exposure duration - composite worker) yr	25	25
EF_{com} (exposure frequency - composite worker) day/yr	250	250
ET_{com} (exposure time - composite worker) hr	8	8
THQ (target hazard quotient) unitless	0.1	0.1
LT (lifetime) yr	70	70
TR (target risk) unitless	1.0E-06	1.0E-06

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ($C_{vp} > C_{i,a}$,Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ($C_{hc} > C_{i,a}$,Target?)	Target Indoor Air Concentration (TCR=1E-06 or THQ=0.1) MIN($C_{ia,c}$,$C_{ia,nc}$) ($\mu g/m^3$)	Toxicity Basis	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=0.1) C_{sg},Target ($\mu g/m^3$)	Target Groundwater Concentration (TCR=1E-06 or THQ=0.1) C_{gw},Target ($\mu g/L$)
Benzene	71-43-2	Yes	Yes	Yes	Yes	1.57E+00	CA	5.24E+01	6.93E+00
Cumene	98-82-8	Yes	Yes	Yes	Yes	1.75E+02	NC	5.84E+03	3.73E+02
Ethyl Chloride	75-00-3	Yes	Yes	Yes	Yes	1.75E+03	NC	5.84E+04	3.86E+03
Toluene	108-88-3	Yes	Yes	Yes	Yes	2.19E+03	NC	7.30E+04	8.07E+03
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	2.63E+01	NC	8.76E+02	1.04E+02
Xylene, m-	108-38-3	Yes	Yes	Yes	Yes	4.38E+01	NC	1.46E+03	1.49E+02
Xylene, o-	95-47-6	Yes	Yes	Yes	Yes	4.38E+01	NC	1.46E+03	2.07E+02
Xylene, p-	106-42-3	Yes	Yes	Yes	Yes	4.38E+01	NC	1.46E+03	1.55E+02

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Is Target Groundwater Concentration < MCL? (C_{gw} < MCL?)	Pure Phase Vapor Concentration C_{vp}\ (25 °C)\ (µg/m³)	Maximum Groundwater Vapor Concentration C_{hc}\ (µg/m³)	Temperature for Maximum Groundwater Vapor Concentration (°C)	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m³)⁻¹	IUR Ref	RfC (mg/m³)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 $C_{ia,c}$ (µg/m³)	Noncarcinogenic VISL THQ=0.1 $C_{ia,nc}$ (µg/m³)
No (5)	3.98E+08	4.06E+08	25	1.20	U	7.80E-06	U	3.00E-02	U	No	1.57E+00	1.31E+01
–	2.91E+07	2.88E+07	25	0.90	U	-		4.00E-01	U	No	-	1.75E+02
–	3.50E+09	3.05E+09	25	3.80	U	-		4.00E+00	U	No	-	1.75E+03
No (1000)	1.41E+08	1.43E+08	25	1.10	U	-		5.00E+00	U	No	-	2.19E+03
–	1.36E+07	1.44E+07	25	0.90	U	-		6.00E-02	U	No	-	2.63E+01
–	4.73E+07	4.73E+07	25	1.10	U	-		1.00E-01	U	No	-	4.38E+01
–	3.77E+07	3.77E+07	25	0.90	U	-		1.00E-01	U	No	-	4.38E+01
–	5.05E+07	4.57E+07	25	1.10	U	-		1.00E-01	U	No	-	4.38E+01

Chemical Properties

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref	MCL (ug/L)	HLC (atm-m ^{3}/mole)	Henry's Law Constant (unitless)	H` and HLC Ref
Benzene	71-43-2	Yes	Yes	78.12	U	9.48E+01	U	1.79E+03	U	5	5.55E-03	2.27E-01	U
Cumene	98-82-8	Yes	Yes	120.20	U	4.50E+00	U	6.13E+01	U	-	1.15E-02	4.70E-01	U
Ethyl Chloride	75-00-3	Yes	Yes	64.52	U	1.01E+03	U	6.71E+03	U	-	1.11E-02	4.54E-01	U
Toluene	108-88-3	Yes	Yes	92.14	U	2.84E+01	U	5.26E+02	U	1000	6.64E-03	2.71E-01	U
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.20	U	2.10E+00	U	5.70E+01	U	-	6.16E-03	2.52E-01	U
Xylene, m-	108-38-3	Yes	Yes	106.17	U	8.29E+00	U	1.61E+02	U	-	7.18E-03	2.94E-01	U
Xylene, o-	95-47-6	Yes	Yes	106.17	U	6.61E+00	U	1.78E+02	U	-	5.18E-03	2.12E-01	U
Xylene, p-	106-42-3	Yes	Yes	106.17	U	8.84E+00	U	1.62E+02	U	-	6.90E-03	2.82E-01	U

Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_c (K)	T_c Ref	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$ (cal/mol)	$\Delta H_{v,b}$ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
2.27E-01	353.15	U	5.62E+02	U	7340.00	U	1.20	U
4.70E-01	425.15	U	6.31E+02	U	10300.00	U	0.90	U
4.54E-01	285.45	U	4.60E+02	U	5890.00	U	3.80	U
2.71E-01	384.15	U	5.92E+02	U	7930.00	U	1.10	U
2.52E-01	442.15	U	6.49E+02	U	9370.00	U	0.90	U
2.94E-01	412.15	U	6.17E+02	U	8520.00	U	1.10	U
2.12E-01	417.15	U	6.30E+02	U	8660.00	U	0.90	U
2.82E-01	411.15	U	6.16E+02	U	8530.00	U	1.10	U

END OF DOCUMENT