

LIMITED ENVIRONMENTAL SUBSURFACE EXPLORATION



NATIONAL MALL CAROUSEL
1000 JEFFERSON DRIVE SW
WASHINGTON, DISTRICT OF COLUMBIA

ECS PROJECT NO. 47:17909

FOR

HARTMAN-COX ARCHITECTS

JUNE 5, 2024





June 5, 2024

Mr. Scott C. Teixeira, FAIA
Hartman-Cox Architects
1074 Thomas Jefferson Street NW
Washington, District of Columbia 20007

ECS Project No. 47:17909

Reference: Limited Environmental Subsurface Exploration, National Mall Carousel, 1000 Jefferson Drive SW, Washington, District of Columbia

Dear Mr. Teixeira:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide you with the results of the Limited Environmental Subsurface Exploration for the above-referenced property. Our services were provided in general accordance with ECS Proposal No. 47:27440-EPR2 authorized on October 30, 2023.

ECS has appreciated the opportunity to assist you with this project. If you have any questions or comments regarding this report, or any other aspect of the project, please contact us at 703-471-8400.

Respectfully submitted,

ECS Mid-Atlantic, LLC

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1.0 PROJECT BACKGROUND

The project site consists of the former location of the carousel on the National Mall located west of the intersection of Jefferson Drive SW and 7th Street NW in Washington, DC. Reportedly, architectural and engineering (A/E) services were requested for the anticipated renovation of the carousel, which will reportedly include hazardous materials remediation and improvements to electrical and mechanical systems. Based on the information provided, the existing carousel was originally constructed as a traveling carousel in 1947, and the carousel was relocated to its current location on the National Mall in 1981. Currently, the carousel has been removed from the property as part of a refurbishment project.

The Smithsonian Institution A/E Scope of Work document (OPDC Project No. 732399615 dated February 23, 2022) indicated that existing conditions and code compliance work should include soil boring tests throughout the area of impact to determine the presence of hazardous materials in the soil, and the preparation of a report outlining the results and remediation steps as required. Therefore, ECS completed a Limited Environmental Subsurface Exploration underneath the location of the former carousel.

2.0 PURPOSE AND SCOPE OF WORK

The purpose of this Limited Environmental Subsurface Exploration was to collect subsurface samples to study the potential presence of contaminants in the area of impact for the carousel renovation project. This exploration was not designed or intended to be a comprehensive site assessment of all environmental conditions beneath the site.

2.1 Lead in Soil Sampling

On May 8, 2024, ECS collected a total of four (4) composite soil samples, including one composite soil sample from each quadrant of the project site where lead-based paint was suspected to have contaminated soil; the four quadrants are depicted in the sampling diagram included in [Appendix I](#) of this report. The soil samples were collected from approximately the top 1.5 centimeters of the subsurface in general accordance with U.S. Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards. The samples were submitted to a laboratory that participates in the American Industrial Hygiene Association (AIHA) Environmental Lead Proficiency Analytical Testing (ELPAT) Programs for analysis of lead concentration (percent by weight) using Flame Atomic Absorption Spectroscopy.

2.2 Subsurface Soil Sampling from Soil Borings

On May 8, 2024, ECS employed a track-mounted Geoprobe to advance a total of five (5) borings across the project site. The approximate boring locations are depicted on the attached boring location diagram included in [Appendix I](#). The Geoprobe used a hydraulic hammer to push a steel rod with a clear PVC sleeve into the ground in 5-foot increments. The macrocore was then withdrawn from the ground, and the sleeve removed, containing a relatively undisturbed soil core. The sleeve was cut open allowing examination and sampling of the entire soil core. Borings were advanced to depths ranging between 13 and 14 feet below existing surface grade.

Discrete soil samples were screened in 2.5-foot intervals throughout the depth of each boring with a Photoionization Detector (PID), which measured total volatile organic compounds (VOCs) emanating from the sample. PID readings are recorded in the attached boring logs ([Appendix III](#)).

Based on PID readings and field observations (staining, odor, etc.), two (2) soil samples from each boring were selected for laboratory analysis. Selected soil samples were placed in clean laboratory-grade glass jars, packed on ice, and shipped to the testing laboratory via courier on the day following sample collection. A total of ten (10) soil samples were submitted under chain-of-custody protocol for laboratory analysis of total petroleum hydrocarbons diesel-range and gasoline-range organics (TPH DRO and TPH GRO), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and Resource Conservation and Recovery Act (RCRA) 8 Metals.

3.0 LEAD IN SHALLOW SOIL SAMPLING RESULTS

A total of four (4) shallow soil samples were submitted for laboratory analysis of total lead. The soil sample results were compared to the Environmental Protection Agency (EPA) Regional Screening Level (RSL) (TR=1E-6, THQ=0.1) for Resident Soil (November 2023). The results are summarized in the laboratory results summary Table 2 [Appendix II](#) and the full laboratory results are provided in [Appendix IV](#).

Lead was detected in each of the four (4) soil samples analyzed for lead concentration. The soil samples contained lead concentrations ranging from 38 milligrams per kilogram (mg/kg) to 63 mg/kg. None of the four (4) soil samples contained lead concentrations that exceeded the EPA RSL for Resident Soil of 400 mg/kg.

4.0 SUBSURFACE SOIL SAMPLING RESULTS

A total of ten (10) soil samples were submitted for laboratory analysis of TPH DRO, TPH GRO, VOCs, PAHs, PCBs, and total RCRA 8 metals. Soil sample results were compared to the DC Risk Based Corrective Action (RBCA) Tier 1 Risk-Based Screening Level (RBSL) for Subsurface Soil to Indoor Inhalation for a Resident Adult, which are the most conservative screening levels. Where DC RBSLs were not established for a particular compound, the values were compared to the Environmental Protection Agency (EPA) Regional Screening Level (RSL) (TR=1E-6, THQ=0.1) for Resident Soil (November 2023). The results are summarized in the laboratory results summary Table 1 in [Appendix II](#) and the full laboratory results are provided in [Appendix IV](#) of this report.

4.1 Petroleum

TPH DRO was detected in one (1) of the ten (10) soil samples analyzed, at a concentration 41.7 mg/kg. TPH DRO was detected in the soil sample collected at a depth of 2.5 to 5 feet below ground surface from soil boring B-2. The detected concentration of TPH DRO did not exceed the DC Department of Energy and Environment (DOEE) Tier 0 screening level of 100 mg/kg or the DC RBCA Tier 1 RBSL for Sub-Surface Soil to Indoor Inhalation for a Resident Adult of 2,120 mg/kg.

TPH GRO was not detected above laboratory detection limits in the soil samples analyzed.

4.2 Volatile Organic Compounds

One (1) VOC, methylene chloride, was detected in each of the ten (10) soil samples analyzed. None of the detected concentrations of methylene chloride exceeded the applicable Resident Soil EPA RSL.

4.3 Polycyclic Aromatic Hydrocarbons (PAHs)

Ten (10) PAHs were detected in one (1) of the 10 soil samples including benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[g,h,i]perylene, benzo[a]pyrene, chrysene, fluoranthene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene. None of the detected PAHs exceeded their respective screening level.

4.4 Polychlorinated Biphenyls (PCBs)

PCBs were not detected above laboratory detection limits in the soil samples analyzed.

4.5 Metals

Six (6) RCRA-8 metals were detected in the ten (10) soil samples including arsenic, barium, chromium, lead, mercury and selenium. The DC DOEE has not established indoor inhalation RBSLs for RCRA-8 Metals. None of the detected metal concentrations exceeded their respective EPA RSL for Resident Soil, with the exception of arsenic. Arsenic detections are discussed further below:

Arsenic was detected in each of the ten (10) soil samples analyzed for RCRA Metals. Detected arsenic concentrations ranged from 3.11 mg/kg to 7.23 mg/kg, and each of the detections exceeded the EPA RSL for Resident Soil, 0.68 mg/kg.

Arsenic is a naturally occurring compound and the majority of detected soil concentrations are within expected background concentrations as defined by USGS Professional Paper 1270, *Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States* (Shacklette and Boerngen, 1984). According to their arsenic map based on 1,257 background samples, soil samples from the greater DC area fall within the general concentration range (4.1 to 6.2 mg/kg) category as the mean for the United States, 5.2 mg/kg. In addition, the majority of the arsenic concentrations detected are consistent with the published 95th percentile background concentrations in Virginia (14.9 mg/kg) and Maryland (9.2 mg/kg), or for the crystalline rocks of Mid-Atlantic Piedmont Physiographic Province (9.7 mg/kg) based on 1,600 background samples (Vosnakis and Perry, 2009). Therefore, based on the published USGS data and our experience with similar sites in the DC metropolitan region, it is ECS's opinion that the detected concentrations of arsenic in subsurface soil were consistent with background concentrations of arsenic in this geologic area, and are not considered to represent evidence of anthropogenic contamination or a significant risk to human health and the environment.

5.0 GROUNDWATER SAMPLING RESULTS

Saturated conditions indicative of groundwater were not encountered in the five (5) borings advanced.

6.0 SUMMARY AND CONCLUSIONS

To determine if subsurface environmental conditions in the vicinity of the carousel at the subject property may have been adversely impacted, ECS collected four (4) shallow soil samples to study potential lead hazards in soil related to lead-based paint which may have been applied to the carousel. ECS also advanced five (5) soil borings to depths ranging between 13 and 14 feet bgs to study contaminants in the subsurface in the area of impact for the carousel renovation project. A total of ten (10) subsurface soil samples were submitted for analysis of TPH DRO, TPH GRO, VOCs, PAHs, PCBs and RCRA-8 metals. Saturated conditions indicative of groundwater were not encountered in the five (5) borings advanced.

TPH DRO was detected in one (1) of the ten (10) soil samples analyzed, at a concentration of 41.7 mg/kg, which did not exceed the DOEE Tier 0 screening level of 100 mg/kg or the DC RBCA Tier 1 RBSL for Sub-Surface Soil to Indoor Inhalation for a Resident Adult of 2,120 mg/kg.

One (1) VOC and ten (10) PAHs were detected in the soil samples analyzed; however, none of the detected VOC or PAH concentrations exceeded applicable DOEE Tier 1 RBSL for subsurface soil to indoor inhalation for a resident adult or EPA RSL for resident soil, where established.

Lead was detected in each of the four (4) shallow soil samples analyzed for lead concentration. The soil samples contained lead concentrations ranging from 38 mg/kg to 63 mg/kg. None of the detected lead concentrations exceeded the EPA RSL for Resident Soil of 400 mg/kg. Additionally, none of the detected metals in the ten (10) soil boring samples exceeded their respective EPA RSL for Resident Soil, with the exception of arsenic. However, based on published data, the arsenic concentrations are believed to be within typical background concentrations for this geologic area. Additionally, arsenic does not readily volatilize. Therefore, the primary metal risk would be from dermal and ingestion pathways.

Based on the detected concentrations of contaminants in the locations sampled, it is ECS's opinion that the detected petroleum, VOC, PAH, and metal concentrations are unlikely to pose an unacceptable risk to human health of current or future occupants. However, petroleum-impacted soil may require special handling if encountered during construction/excavation activities at the subject property.

If encountered during redevelopment, petroleum-impacted soils that are excavated and need to be removed from the site as part of site development will need to be disposed of appropriately at a landfill or treatment/disposal facility permitted to accept such wastes. Disposal criteria for contaminated soil will depend on the jurisdiction in which it is to be disposed. In the District of Columbia, excavated soils containing detectable petroleum concentrations below the Tier 0 limit, 100 mg/kg of TPH DRO, can be reused as fill material on the same site from which they were excavated. The onsite reuse limit for TPH GRO in the District of Columbia is the Tier 1 limit, 54.4 mg/kg. Soils that are excavated containing petroleum concentrations above their respective TPH DRO and GRO limits or below their respective TPH DRO and GRO limits that cannot be reused onsite cannot be disposed of within the District limits and must be disposed of at an appropriate disposal or treatment facility.

In Maryland, based on the Land Materials Administration Fact Sheet dated August 2017, soil containing petroleum (TPH DRO or TPH GRO) concentrations less than 230 mg/kg may be used as Category 1 fill materials at both residential and non-residential sites. Soil containing petroleum (TPH DRO or TPH GRO) concentrations less than 620 mg/kg may be used as Category 2 fill materials on non-residential sites only. Soils containing petroleum concentrations greater than 620 mg/kg will need to be disposed at a licensed disposal/treatment facility capable of accepting the material. However, for use as Category 1 or 2 fill material, all other contaminants will also need to be below their respective residential or commercial screening levels as defined in the current "State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater," dated October 2018. Reuse of contaminated soil in accordance with the Fact Sheet is dependent on MDE Land Restoration Program review and approval of the material for use as backfill on the selected property. MDE may request additional site information (both for the source and receiving sites), and/or additional sampling and analysis prior to approval. If a site cannot be located to accept contaminated material as backfill, it will need to be disposed of at a licensed disposal/treatment facility capable of accepting the material.

In Virginia, solid waste management regulations divide petroleum-impacted soils into various classes depending on concentration. Soils containing petroleum concentrations less than 50 mg/kg and total BTEX less than 10 mg/kg may be disposed with certain restrictions (see 9VAC20-81-660-D.2.d). Soils containing less than 500 mg/kg petroleum may be disposed of in a lined landfill permitted to receive such wastes. Soils containing petroleum concentrations greater than 500 mg/kg may not be disposed of in Virginia landfills, unless the permit expressly allows for such disposal.

In practice, it is often difficult for developers and contractors to find a suitable disposal location for "marginally-impacted" petroleum contaminated soils- i.e. soils containing detectable petroleum concentrations below the regulatory thresholds. This is due to the paucity of net fill construction sites in the area, and the relative abundance of legitimately clean fill materials with no petroleum contamination. Given the option, developers of most fill sites will prefer clean fill materials over marginally-impacted materials. Consequently, it is common practice in this region to dispose of even low-level contaminated soils at petroleum-impacted soil facilities such as Clean Earth, Inc. of Greater Washington (Brandywine, Maryland) or Soil Safe, Inc. (Upper Marlboro, Maryland).

7.0 QUALIFICATIONS

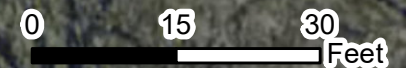
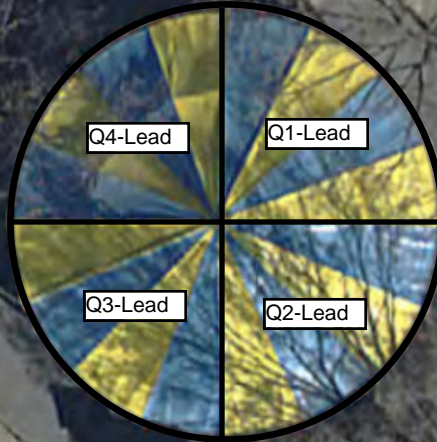
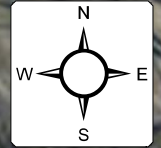
The conclusions presented within this report are based upon a reasonable level of investigation within normal bounds and standards of professional practice for a site in this particular geographic and geologic setting, and the areas of the site accessible for drilling.

The findings of this study are not intended to serve as an audit of health and safety or compliance issues pertaining to improvements or occupant activities on-site. All observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are limited to conditions observed, depths sampled, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. ECS has not completed or used any form of predetermined language to report the conclusions of this work, and it is our understanding that we will not be required to do

so. Compensation for this investigation is not contingent upon results, and ECS has conducted this environmental soil sampling objectively without reference to any particular outcome desired by the client.

This letter is provided for the exclusive use of Hartman-Cox Architects. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this letter by any undesignated third party or parties would be at such party's sole risk and ECS disclaims liability for any such third party use or reliance.

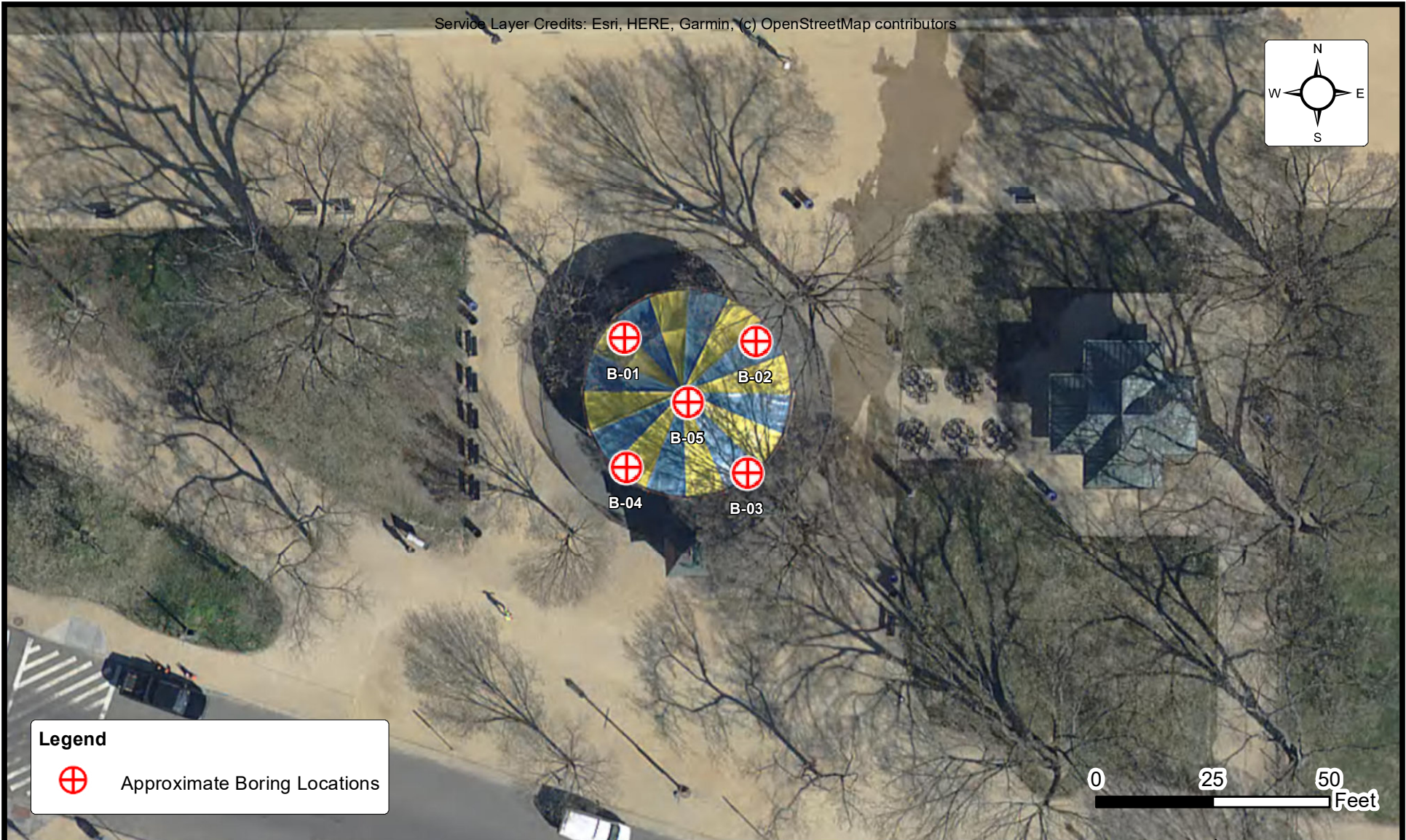
Appendix I: Sampling Location Diagrams




SHALLOW LEAD SOIL SAMPLING DIAGRAM SMITHSONIAN CAROUSEL LIMITED SUBSURFACE EXPLORATION

901 Jefferson Drive SW, Washington, District of Columbia, 20560
Hartman - Cox Architects

ENGINEER BJW1
SCALE AS NOTED
PROJECT NO. 47:17909
FIGURE 1 OF 1
DATE 5/30/2024



Legend

 Approximate Boring Locations



BORING LOCATION DIAGRAM

SMITHSONIAN CAROUSEL LIMITED SUBSURFACE EXPLORATION

901 Jefferson Drive SW, Washington, District of Columbia, 20560
Hartman - Cox Architects

ENGINEER DJB
SCALE AS NOTED
PROJECT NO. 47:17909
FIGURE 1 OF 1
DATE 5/30/2024

Appendix II: Laboratory Results Summary Tables

Table 1
Summary of Detected Lead Concentrations in Shallow Soil Samples
S.I Carousel Limited Environmental Subsurface Exploration
Washington, DC

	Sample ID	Q1-Lead	Q2-Lead	Q3-Lead	Q4-Lead
	Sample Date	5/8/2024	5/8/2024	5/8/2024	5/8/2024
Metals	EPA RSL for Resident Soil (mg/kg)	mg/kg	mg/kg	mg/kg	mg/kg
Lead	400	60.0	46.0	63.0	38.0

Notes:

mg/kg = milligrams per kilogram

Only compounds present at concentrations above the laboratory detection limit are included


Exceeds EPA RSL for Resident Soil Screening Level

Table 2
Summary of Detected Concentrations in Subsurface Soil
S.I Carousel Limited Environmental Subsurface Exploration
Washington, DC

	Sample ID	B-1 2.5-5'	B-1 10.5-13'	B-2 2.5-5'	B-2 11.5-14'	B-3 2.5-5'	B-3 11.5-14'	B-4 2.5-5'	B-4 11.5-14'	B-5 2.5-5'	B-511-13.5'
	Sample Date	5/8/2024	5/8/2024	5/8/2024	5/8/2024	5/8/2024	5/8/2024	5/8/2024	5/8/2024	5/8/2024	5/8/2024
Total Petroleum Hydrocarbons	Indoor Inhalation of Sub-Surface Soil Screening Level*(mg/kg)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Diesel-Range Organics	2,120*	ND	ND	41.7	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds	Screening Level (µg/kg)	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Methylene chloride	35,000**	28.8 L	24.0 L	31.3 L	22.3 L	25.6 L	28.7 L	38.7 L	34.2 L	45.0 L	37.8 L
Semi-Volatile Organic Compounds	Screening Level (µg/kg)	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Benzo[a]anthracene	103,000*	ND	ND	320	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	3,460,000*	ND	ND	490	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	3,770,000*	ND	ND	160	ND	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	NA	ND	ND	260	ND	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	453,000*	ND	ND	350	ND	ND	ND	ND	ND	ND	ND
Chrysene	2,120,000*	ND	ND	330	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	NA	ND	ND	550	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	1,100**	ND	ND	250	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NA	ND	ND	350	ND	ND	ND	ND	ND	ND	ND
Pyrene	NA	ND	ND	530	ND	ND	ND	ND	ND	ND	ND
RCRA Metals	Screening Level (mg/kg)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Arsenic	0.68**	5.10	3.62	7.23	3.16	6.03	3.32	5.56	3.11	4.76	3.37
Barium	1,500**	56.1	24.4	93.4	21.2	61.6	21.8	54.4	21.1	51.1	24.5
Chromium (total)	ne	18.5	10.2	20.0	7.94	22.7	10.1	18.2	12.1	15.5	9.93
Lead	400**	10.8	5.32	60.6	4.37	10.9	4.88	10.9	4.37	10.1	3.96
Mercury	1.1**	0.0376	ND	0.259	ND	0.043	ND	0.0723	ND	0.0243	ND
Selenium	39**	0.903	0.911	2.30	0.864	0.805	0.623	0.954	0.966	0.976	0.939


Notes:
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
Only compounds present at concentrations above the laboratory detection limit are included
L= analyte is a possible laboratory contaminant
*= D.C. Risk-Based Corrective Action (DCRBCA) Technical Guidance, Table 5-9 Risk-Based Screening for a Resident Adult, Sub-Surface Soil, Indoor Inhalation, Updated June 2011
**= no DCRBCA screening level established, screening level based on EPA Regional Screening Level (RSL) Summary Table November 2023 (TR=1E-6, THQ=0.1) for Resident Soil
NA = screening level not available due to lack of an input parameter, per DCRBCA Technical Guidance
ne = no established screening level
ND = analyte not detected at or above the reporting limit
Bold Exceeds screening level

Appendix III: Boring Logs

Project Name: Smithsonian Carousel Limited Subsurface Exploration	Sheet: 1 of 1	Boring No: B-01	
Client: Hartman - Cox Architects	Project No.: 47:17909		
Site Location: 900 Jefferson Drive SW, Washington, District of Columbia, 20560	Driller: GSI Mid-Atlantic, Inc.	Drill Rig: GeoProbe	
Latitude/Longitude:			


Depth/Elevation	PID READING	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
5	-5	0.0			Asphalt	Asphalt Thickness[6.00"]
		B-1 2.5-5'			SC	(SC) CLAYEY SAND, brown, dry, medium dense
		0.0			SP	(SP) SAND, brown, dry, medium dense
10	-10	0.0			SP	(SP) SAND, contains rock fragments, brown, dry, medium dense
		B-1 11.5-13'			SP	
		0.0				Refusal encountered at 13.0 feet.
		0.0				END OF DRILLING AT 13.0 FT
15	-15					
20						

<input type="checkbox"/> WL (First Encountered) Dry	Boring Started: May 08 2024
<input checked="" type="checkbox"/> WL (Completion)	Boring Completed: May 08 2024
Remarks:	Logged By: Jacey Schick
	Principal Engineer/ Responsible PG: Brian Wasserstein

Project Name: Smithsonian Carousel Limited Subsurface Exploration	Sheet: 1 of 1	Boring No: B-02	
Client: Hartman - Cox Architects	Project No.: 47:17909		
Site Location: 900 Jefferson Drive SW, Washington, District of Columbia, 20560	Driller: GSI Mid-Atlantic, Inc.	Drill Rig: GeoProbe	
Latitude/Longitude:			


Depth/Elevation	PID READING	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
5 -5 10 -10 15 -15 20	0.0	B-2 2.5-5'	0.0	0.0	SP	(SP) SAND, dark brown, dry, medium dense
	0.0			SC	(SC) CLAYEY SAND, brown, dry, medium dense	
	0.0	CL		(CL) SANDY LEAN CLAY, brown, dry, firm		
	0.0	SP		(SP) SAND, brown, dry, medium dense		
	0.0	B-2 11.5-14'		SP	(SP) SAND, contains rock fragments, brown, dry, medium dense	
	0.0					Refusal encountered at 14.0 feet. END OF DRILLING AT 14.0 FT

<input type="checkbox"/> WL (First Encountered) Dry	Boring Started: May 08 2024
<input checked="" type="checkbox"/> WL (Completion)	Boring Completed: May 08 2024
Remarks:	Logged By: Jacey Schick
	Principal Engineer/ Responsible PG: Brian Wasserstein

Project Name: Smithsonian Carousel Limited Subsurface Exploration	Sheet: 1 of 1	Boring No: B-03	
Client: Hartman - Cox Architects	Project No.: 47:17909		
Site Location: 900 Jefferson Drive SW, Washington, District of Columbia, 20560	Driller: GSI Mid-Atlantic, Inc.	Drill Rig: GeoProbe	
Latitude/Longitude:			


Depth/Elevation	PID READING	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
5	-5	0.0			SC	(SC) CLAYEY SAND, brown, moist, medium dense
		0.0			SC	(SC) CLAYEY SAND, brown, dry, medium dense
		0.0				(SP) SAND, contains rock fragments, brown, dry, medium dense
		0.0			SP	
		0.0				
		0.4				Refusal encountered at 14.0 feet. END OF DRILLING AT 14.0 FT
15	-15					
20						

<input type="checkbox"/> WL (First Encountered) Dry	Boring Started: May 08 2024
<input checked="" type="checkbox"/> WL (Completion)	Boring Completed: May 08 2024
Remarks:	Logged By: Jacey Schick
	Principal Engineer/ Responsible PG: Brian Wasserstein

Project Name: Smithsonian Carousel Limited Subsurface Exploration	Sheet: 1 of 1	Boring No: B-04	
Client: Hartman - Cox Architects	Project No.: 47:17909		
Site Location: 900 Jefferson Drive SW, Washington, District of Columbia, 20560	Driller: GSI Mid-Atlantic, Inc.	Drill Rig: GeoProbe	
Latitude/Longitude:			

Depth/Elevation	PID READING	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
5 -5 10 -10 15 -15 20	0.0	B-4 2.5-5'	0.0		SP	(SP) SAND, dark brown, dry, medium dense
	0.0			SC	(SC) CLAYEY SAND, brown, moist, medium dense	
	0.0	SC		(SC) CLAYEY SAND, brown, dry, medium dense		
	0.0	B-4 11.5-14'			SP	(SP) SAND, brown, dry, medium dense
	0.0			SP	(SP) SAND, contains rock fragments, brown, dry, medium dense	
	0.0			Refusal encountered at 14.0 feet. END OF DRILLING AT 14.0 FT		

<input type="checkbox"/> WL (First Encountered) Dry	Boring Started: May 08 2024
<input checked="" type="checkbox"/> WL (Completion)	Boring Completed: May 08 2024
Remarks:	Logged By: Jacey Schick
	Principal Engineer/ Responsible PG: Brian Wasserstein

Project Name: Smithsonian Carousel Limited Subsurface Exploration	Sheet: 1 of 1	Boring No: B-05	
Client: Hartman - Cox Architects	Project No.: 47:17909		
Site Location: 900 Jefferson Drive SW, Washington, District of Columbia, 20560	Driller: GSI Mid-Atlantic, Inc.	Drill Rig: GeoProbe	
Latitude/Longitude:			

Depth/Elevation	PID READING	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
					Asphalt	Asphalt Thickness[6.00"]
5	-5	2.8 B-5 2.5-5'			SC	(SC) CLAYEY SAND, brown, dry, medium dense
		3.2				
		0.7				(SP) SAND, contains rock fragments, brown, dry, medium dense
10	-10	2.7 B-5 11-13.5'			SP	
		2.7				
15	-15					Refusal encountered at 13.5 feet. END OF DRILLING AT 13.5 FT
20						

<input type="checkbox"/> WL (First Encountered) Dry	Boring Started: May 08 2024
<input checked="" type="checkbox"/> WL (Completion)	Boring Completed: May 08 2024
Remarks:	Logged By: Jacey Schick
	Principal Engineer/ Responsible PG: Brian Wasserstein

Appendix IV: Laboratory Reports



Analysis for Lead Concentration in Soil Samples

by Flame Atomic Absorption Spectroscopy
EPA SW-846 3050B/6010C/7000B



Customer: ECS Mid-Atlantic, LLC
14026 Thunderbolt Place
Chantilly, VA 20151

Attn: Joshua Cinnamon

Lab Order ID: 10051081

Analysis: PBS

Date Received: 05/10/2024

Date Reported: 05/20/2024

Project: National Mall Carousel

Sample ID	Description	Mass (g)	Concentration (ppm)	Concentration (% by weight)
Lab Sample ID	Lab Notes			
Q1-Lead	Quadrant 1/Northeast	1.3959	60.	0.0060%
10051081_0001				
Q2-Lead	Quadrant 2/Southeast	1.9150	46	0.0046%
10051081_0002				
Q3-Lead	Quadrant 3/Southwest	1.8393	63	0.0063%
10051081_0003				
Q4-Lead	Quadrant 4/Northwest	2.5457	38	0.0038%
10051081_0004				

Disclaimer: Unless otherwise noted blank sample correction was not performed on analytical results. Scientific Analytical Institute participates in the AIHA ELPAT program. ELPAT Laboratory ID: 173190. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. Analytical uncertainty available upon request. The quality control samples run with the samples in this report have passed all EPA required specifications unless otherwise noted. RL: (Report Limit for an undiluted 50 ml sample is 4µg Total Pb).

Athena Summa (4)

Analyst

Approved Signatory



4604 Dundas Dr. Greensboro, NC 27407
Phone: 336.292.3888 Fax: 336.292.3313
www.sailab.com lab@sailab.com

Lab Order ID: 10051081
Client Code: _____

Contact Information
Company Name: ECS Mid-Atlantic, LLC
Address: 14026 Thunderbolt Place, Suite 100 Chantilly, VA 20151
Contact: Joshua Cinnamon
Phone [█]: 571.449.0471
Fax []:
Email [█]: JCinnamon@ecslimited.com
PO Number: 47:17909
Project Name/Number: National Mall Carousel

Billing/Invoice Information
Company: ECS Mid-Atlantic, LLC
Address: 14026 Thunderbolt Place, Suite 100 Chantilly, VA 20151
Contact: Joshua Cinnamon
Phone [█]: 571.449.0471
Fax []:
Email [█]: JCinnamon@ecslimited.com

Lead Test Types
Paint Chips by Flame AA [] (PBP) Soil by Flame AA [█] (PBS) Other []
Wipe by Flame AA [] (PBW) Air by Flame AA [] (PBA)

Turn Around Times
3 Hours [] 72 Hours []
6 Hours [] 96 Hours []
12 Hours [] 120 Hours []
24 Hours [] 144+ Hours [x]
48 Hours [] 144 Hours []

Sample ID #	Description/Location	Volume/Area	Comments
Q1-Lead	Quadrant 1/Northeast		Composite of 10 aliquots
Q2-Lead	Quadrant 2/Southeast		Composite of 10 aliquots
Q3-Lead	Quadrant 3/Southwest		Composite of 10 aliquots
Q4-Lead	Quadrant 4/Northwest		Composite of 10 aliquots

Accepted [█]
 Returned []
 [Signature] 5/9 10am

Total Number of Samples 4

Relinquished by Jacey Schick	Date/Time 5/8 1400	Received by	Date/Time
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17 May 2024

Josh Cinnamon
ECS-Chantilly
14026 Thunderbolt Place, Suite 100
Chantilly, VA 20151
RE: DC CAROUSEL

Enclosed are the results of analyses for samples received by the laboratory on 05/08/24 14:30.

Maryland Spectral Services, Inc. is a TNI 2016 Standard accredited laboratory and as such, all analyses performed at Maryland Spectral Services included in this report are 2016 TNI certified except as indicated at the end of this report. Please visit our website at www.mdspectral.com for a complete listing of our TNI 2016 Standard accreditations.

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

Sincerely,



Will Brewington
President

Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1 2.5-5'		4050829-01	Soil	05/08/24 12:00	05/08/24 14:30
B-1 10.5-13'		4050829-02	Soil	05/08/24 12:05	05/08/24 14:30
B-2 2.5-5'		4050829-03	Soil	05/08/24 12:10	05/08/24 14:30
B-2 11.5-14'		4050829-04	Soil	05/08/24 12:15	05/08/24 14:30
B-3 2.5-5'		4050829-05	Soil	05/08/24 12:30	05/08/24 14:30
B-3 11.5-14'		4050829-06	Soil	05/08/24 12:35	05/08/24 14:30
B-4 2.5-5'		4050829-07	Soil	05/08/24 12:40	05/08/24 14:30
B-4 11.5-14'		4050829-08	Soil	05/08/24 12:45	05/08/24 14:30
B-5 2.5-5'		4050829-09	Soil	05/08/24 12:50	05/08/24 14:30
B-5 11-13.5'		4050829-10	Soil	05/08/24 12:55	05/08/24 14:30

Will Brewington, President

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-1 2.5-5'

4050829-01 (Soil)

Sampled on: 05/08/24 12:00

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	11.8	11.8	1	05/15/24	05/15/24 18:27	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	59.0	59.0	1	05/15/24	05/15/24 18:27	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Benzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Bromobenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Bromochloromethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Bromodichloromethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Bromoform	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Bromomethane	ND		ug/kg dry	5.9	5.9	1	05/15/24	05/15/24 18:27	WB
tert-Butanol (TBA)	ND		ug/kg dry	59.0	59.0	1	05/15/24	05/15/24 18:27	WB
2-Butanone (MEK)	ND		ug/kg dry	11.8	11.8	1	05/15/24	05/15/24 18:27	WB
n-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
sec-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
tert-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Carbon disulfide	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Carbon tetrachloride	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Chlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Chloroethane	ND		ug/kg dry	5.9	5.9	1	05/15/24	05/15/24 18:27	WB
Chloroform	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Chloromethane	ND		ug/kg dry	5.9	5.9	1	05/15/24	05/15/24 18:27	WB
2-Chlorotoluene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
4-Chlorotoluene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Dibromochloromethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Dibromomethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,2-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,3-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,4-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Dichlorodifluoromethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,1-Dichloroethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,2-Dichloroethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,1-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB

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Will Brewington, President

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-1 2.5-5'

4050829-01 (Soil)

Sampled on: 05/08/24 12:00

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Dichlorofluoromethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,2-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,3-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
2,2-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,1-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Ethylbenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Hexachlorobutadiene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
2-Hexanone	ND		ug/kg dry	11.8	11.8	1	05/15/24	05/15/24 18:27	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
4-Isopropyltoluene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
4-Methyl-2-pentanone	ND		ug/kg dry	11.8	11.8	1	05/15/24	05/15/24 18:27	WB
Methylene chloride	28.8	L	ug/kg dry	23.6	23.6	1	05/15/24	05/15/24 18:27	WB
Naphthalene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
n-Propylbenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Styrene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Tetrachloroethene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Toluene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,1,1-Trichloroethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,1,2-Trichloroethane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Trichloroethene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,2,3-Trichloropropane	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-1 2.5-5'

4050829-01 (Soil)

Sampled on: 05/08/24 12:00

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
Vinyl chloride	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
o-Xylene	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
m- & p-Xylenes	ND		ug/kg dry	5.9	2.4	1	05/15/24	05/15/24 18:27	WB
<i>Surrogate: 1,2-Dichloroethane-d4</i>		70-130		104 %	05/15/24		05/15/24 18:27		
<i>Surrogate: Toluene-d8</i>		75-120		95 %	05/15/24		05/15/24 18:27		
<i>Surrogate: 4-Bromofluorobenzene</i>		65-120		102 %	05/15/24		05/15/24 18:27		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Acenaphthylene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Anthracene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Benzo[a]anthracene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Benzo[b]fluoranthene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Benzo[k]fluoranthene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Benzo[g,h,i]perylene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Benzo[a]pyrene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Chrysene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Fluoranthene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Fluorene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
2-Methylnaphthalene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Naphthalene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Phenanthrene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
Pyrene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 17:30	EH
<i>Surrogate: 2-Fluorophenol</i>		23-121		90 %	05/11/24		05/14/24 17:30		
<i>Surrogate: Phenol-d5</i>		24-113		93 %	05/11/24		05/14/24 17:30		
<i>Surrogate: Nitrobenzene-d5</i>		23-120		95 %	05/11/24		05/14/24 17:30		
<i>Surrogate: 2,4,6-Tribromophenol</i>		19-122		97 %	05/11/24		05/14/24 17:30		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		98 %	05/11/24		05/14/24 17:30		
<i>Surrogate: Terphenyl-d14</i>		18-137		98 %	05/11/24		05/14/24 17:30		

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-1 2.5-5'

4050829-01 (Soil)
Sampled on: 05/08/24 12:00

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC

Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	05/14/24	05/14/24 20:48	MNB
<i>Surrogate: a,a,a-Trifluorotoluene [FID]</i>			85-115	102 %	05/14/24		05/14/24 20:48		

DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)

Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.4	9.4	1	05/13/24	05/14/24 15:34	TS
<i>Surrogate: o-Terphenyl</i>			70-130	96 %	05/13/24		05/14/24 15:34		

PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids

Percent Solids	85		%			1	05/14/24	05/15/24 08:35	CZ
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POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB

Aroclor-1016	ND		ug/kg dry	47.2	47.2	1	05/12/24	05/13/24 17:22	ARS
Aroclor-1221	ND		ug/kg dry	47.2	47.2	1	05/12/24	05/13/24 17:22	ARS
Aroclor-1232	ND		ug/kg dry	47.2	47.2	1	05/12/24	05/13/24 17:22	ARS
Aroclor-1242	ND		ug/kg dry	47.2	47.2	1	05/12/24	05/13/24 17:22	ARS
Aroclor-1248	ND		ug/kg dry	47.2	47.2	1	05/12/24	05/13/24 17:22	ARS
Aroclor-1254	ND		ug/kg dry	47.2	47.2	1	05/12/24	05/13/24 17:22	ARS
Aroclor-1260	ND		ug/kg dry	47.2	47.2	1	05/12/24	05/13/24 17:22	ARS
Aroclor-1262	ND		ug/kg dry	47.2	47.2	1	05/12/24	05/13/24 17:22	ARS
Aroclor-1268	ND		ug/kg dry	47.2	47.2	1	05/12/24	05/13/24 17:22	ARS
<i>Surrogate: Tetrachloro-m-xylene</i>			40-150	99 %	05/12/24		05/13/24 17:22		
<i>Surrogate: Decachlorobiphenyl</i>			40-150	83 %	05/12/24		05/13/24 17:22		

Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion

Arsenic	5.10		mg/kg dry	0.295	0.295	1	05/09/24	05/10/24 21:35	AWH
Barium	56.1		mg/kg dry	0.295	0.295	1	05/09/24	05/10/24 21:35	AWH
Cadmium	ND		mg/kg dry	0.295	0.295	1	05/09/24	05/10/24 21:35	AWH
Chromium	18.5		mg/kg dry	0.295	0.295	1	05/09/24	05/10/24 21:35	AWH
Lead	10.8		mg/kg dry	0.295	0.295	1	05/09/24	05/10/24 21:35	AWH
Mercury	0.0376		mg/kg dry	0.0147	0.0147	1	05/09/24	05/10/24 21:35	AWH
Selenium	0.903		mg/kg dry	0.295	0.295	1	05/09/24	05/10/24 21:35	AWH
Silver	ND		mg/kg dry	0.295	0.295	1	05/09/24	05/10/24 21:35	AWH



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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-1 10.5-13'

4050829-02 (Soil)

Sampled on: 05/08/24 12:05

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	10.9	10.9	1	05/15/24	05/15/24 18:55	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	54.5	54.5	1	05/15/24	05/15/24 18:55	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Benzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Bromobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Bromochloromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Bromodichloromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Bromoform	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Bromomethane	ND		ug/kg dry	5.4	5.4	1	05/15/24	05/15/24 18:55	WB
tert-Butanol (TBA)	ND		ug/kg dry	54.5	54.5	1	05/15/24	05/15/24 18:55	WB
2-Butanone (MEK)	ND		ug/kg dry	10.9	10.9	1	05/15/24	05/15/24 18:55	WB
n-Butylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
sec-Butylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
tert-Butylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Carbon disulfide	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Carbon tetrachloride	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Chlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Chloroethane	ND		ug/kg dry	5.4	5.4	1	05/15/24	05/15/24 18:55	WB
Chloroform	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Chloromethane	ND		ug/kg dry	5.4	5.4	1	05/15/24	05/15/24 18:55	WB
2-Chlorotoluene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
4-Chlorotoluene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Dibromochloromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Dibromomethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,2-Dichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,3-Dichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,4-Dichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Dichlorodifluoromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,1-Dichloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,2-Dichloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,1-Dichloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-1 10.5-13'

4050829-02 (Soil)

Sampled on: 05/08/24 12:05

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Dichlorofluoromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,2-Dichloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,3-Dichloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
2,2-Dichloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,1-Dichloropropene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Ethylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Hexachlorobutadiene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
2-Hexanone	ND		ug/kg dry	10.9	10.9	1	05/15/24	05/15/24 18:55	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
4-Isopropyltoluene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
4-Methyl-2-pentanone	ND		ug/kg dry	10.9	10.9	1	05/15/24	05/15/24 18:55	WB
Methylene chloride	24.0	L	ug/kg dry	21.8	21.8	1	05/15/24	05/15/24 18:55	WB
Naphthalene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
n-Propylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Styrene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Tetrachloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Toluene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,1,1-Trichloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,1,2-Trichloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Trichloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,2,3-Trichloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-1 10.5-13'

4050829-02 (Soil)

Sampled on: 05/08/24 12:05

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Vinyl chloride	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
o-Xylene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
m- & p-Xylenes	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 18:55	WB
Surrogate: 1,2-Dichloroethane-d4		70-130		103 %	05/15/24		05/15/24 18:55		
Surrogate: Toluene-d8		75-120		94 %	05/15/24		05/15/24 18:55		
Surrogate: 4-Bromofluorobenzene		65-120		99 %	05/15/24		05/15/24 18:55		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Acenaphthylene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Anthracene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Benzo[a]anthracene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Benzo[b]fluoranthene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Benzo[k]fluoranthene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Benzo[g,h,i]perylene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Benzo[a]pyrene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Chrysene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Fluoranthene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Fluorene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
2-Methylnaphthalene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Naphthalene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Phenanthrene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Pyrene	ND		ug/kg dry	87	87	1	05/11/24	05/14/24 17:51	EH
Surrogate: 2-Fluorophenol		23-121		90 %	05/11/24		05/14/24 17:51		
Surrogate: Phenol-d5		24-113		94 %	05/11/24		05/14/24 17:51		
Surrogate: Nitrobenzene-d5		23-120		95 %	05/11/24		05/14/24 17:51		
Surrogate: 2,4,6-Tribromophenol		19-122		99 %	05/11/24		05/14/24 17:51		
Surrogate: 2-Fluorobiphenyl		30-115		101 %	05/11/24		05/14/24 17:51		
Surrogate: Terphenyl-d14		18-137		104 %	05/11/24		05/14/24 17:51		

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-1 10.5-13'

4050829-02 (Soil)

Sampled on: 05/08/24 12:05

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC

Gasoline-Range Organics	ND		mg/kg dry	0.11	0.11	1	05/14/24	05/14/24 21:15	MNB
<i>Surrogate: a,a,a-Trifluorotoluene [FID]</i>				85-115	102 %		05/14/24	05/14/24 21:15	

DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)

Diesel-Range Organics (C10-C28)	ND		mg/kg dry	8.7	8.7	1	05/13/24	05/14/24 15:59	TS
<i>Surrogate: o-Terphenyl</i>				70-130	117 %		05/13/24	05/14/24 15:59	

PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids

Percent Solids	92		%			1	05/14/24	05/15/24 08:35	CZ
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POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB

Aroclor-1016	ND		ug/kg dry	43.6	43.6	1	05/12/24	05/13/24 17:35	ARS
Aroclor-1221	ND		ug/kg dry	43.6	43.6	1	05/12/24	05/13/24 17:35	ARS
Aroclor-1232	ND		ug/kg dry	43.6	43.6	1	05/12/24	05/13/24 17:35	ARS
Aroclor-1242	ND		ug/kg dry	43.6	43.6	1	05/12/24	05/13/24 17:35	ARS
Aroclor-1248	ND		ug/kg dry	43.6	43.6	1	05/12/24	05/13/24 17:35	ARS
Aroclor-1254	ND		ug/kg dry	43.6	43.6	1	05/12/24	05/13/24 17:35	ARS
Aroclor-1260	ND		ug/kg dry	43.6	43.6	1	05/12/24	05/13/24 17:35	ARS
Aroclor-1262	ND		ug/kg dry	43.6	43.6	1	05/12/24	05/13/24 17:35	ARS
Aroclor-1268	ND		ug/kg dry	43.6	43.6	1	05/12/24	05/13/24 17:35	ARS
<i>Surrogate: Tetrachloro-m-xylene</i>				40-150	105 %		05/12/24	05/13/24 17:35	
<i>Surrogate: Decachlorobiphenyl</i>				40-150	88 %		05/12/24	05/13/24 17:35	

Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion

Arsenic	3.62		mg/kg dry	0.272	0.272	1	05/15/24	05/16/24 17:04	AWH
Barium	24.4		mg/kg dry	0.272	0.272	1	05/15/24	05/16/24 17:04	AWH
Cadmium	ND		mg/kg dry	0.272	0.272	1	05/15/24	05/16/24 17:04	AWH
Chromium	10.2		mg/kg dry	0.272	0.272	1	05/15/24	05/16/24 17:04	AWH
Lead	5.32		mg/kg dry	0.272	0.272	1	05/15/24	05/16/24 17:04	AWH
Mercury	ND		mg/kg dry	0.0136	0.0136	1	05/15/24	05/16/24 17:04	AWH
Selenium	0.911		mg/kg dry	0.272	0.272	1	05/15/24	05/16/24 17:04	AWH
Silver	ND		mg/kg dry	0.272	0.272	1	05/15/24	05/16/24 17:04	AWH

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-2 2.5-5'

4050829-03 (Soil)

Sampled on: 05/08/24 12:10

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	12.2	12.2	1	05/15/24	05/15/24 19:22	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	61.1	61.1	1	05/15/24	05/15/24 19:22	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Benzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Bromobenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Bromochloromethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Bromodichloromethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Bromoform	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Bromomethane	ND		ug/kg dry	6.1	6.1	1	05/15/24	05/15/24 19:22	WB
tert-Butanol (TBA)	ND		ug/kg dry	61.1	61.1	1	05/15/24	05/15/24 19:22	WB
2-Butanone (MEK)	ND		ug/kg dry	12.2	12.2	1	05/15/24	05/15/24 19:22	WB
n-Butylbenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
sec-Butylbenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
tert-Butylbenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Carbon disulfide	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Carbon tetrachloride	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Chlorobenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Chloroethane	ND		ug/kg dry	6.1	6.1	1	05/15/24	05/15/24 19:22	WB
Chloroform	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Chloromethane	ND		ug/kg dry	6.1	6.1	1	05/15/24	05/15/24 19:22	WB
2-Chlorotoluene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
4-Chlorotoluene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Dibromochloromethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Dibromomethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,2-Dichlorobenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,3-Dichlorobenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,4-Dichlorobenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Dichlorodifluoromethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,1-Dichloroethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,2-Dichloroethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,1-Dichloroethene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB

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Will Brewington, President

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-2 2.5-5'

4050829-03 (Soil)

Sampled on: 05/08/24 12:10

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Dichlorofluoromethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,2-Dichloropropane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,3-Dichloropropane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
2,2-Dichloropropane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,1-Dichloropropene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Ethylbenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Hexachlorobutadiene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
2-Hexanone	ND		ug/kg dry	12.2	12.2	1	05/15/24	05/15/24 19:22	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
4-Isopropyltoluene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
4-Methyl-2-pentanone	ND		ug/kg dry	12.2	12.2	1	05/15/24	05/15/24 19:22	WB
Methylene chloride	31.3	L	ug/kg dry	24.4	24.4	1	05/15/24	05/15/24 19:22	WB
Naphthalene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
n-Propylbenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Styrene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Tetrachloroethene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Toluene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,1,1-Trichloroethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,1,2-Trichloroethane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Trichloroethene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,2,3-Trichloropropane	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-2 2.5-5'

4050829-03 (Soil)

Sampled on: 05/08/24 12:10

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
Vinyl chloride	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
o-Xylene	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
m- & p-Xylenes	ND		ug/kg dry	6.1	2.4	1	05/15/24	05/15/24 19:22	WB
<i>Surrogate: 1,2-Dichloroethane-d4</i>		70-130		104 %	05/15/24		05/15/24 19:22		
<i>Surrogate: Toluene-d8</i>		75-120		99 %	05/15/24		05/15/24 19:22		
<i>Surrogate: 4-Bromofluorobenzene</i>		65-120		92 %	05/15/24		05/15/24 19:22		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Acenaphthylene	ND		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Anthracene	ND		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Benzo[a]anthracene	320		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Benzo[b]fluoranthene	490		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Benzo[k]fluoranthene	160		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Benzo[g,h,i]perylene	260		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Benzo[a]pyrene	350		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Chrysene	330		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Fluoranthene	550		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Fluorene	ND		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Indeno[1,2,3-cd]pyrene	250		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
2-Methylnaphthalene	ND		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Naphthalene	ND		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Phenanthrene	350		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
Pyrene	530		ug/kg dry	98	98	1	05/11/24	05/14/24 18:12	EH
<i>Surrogate: 2-Fluorophenol</i>		23-121		61 %	05/11/24		05/14/24 18:12		
<i>Surrogate: Phenol-d5</i>		24-113		65 %	05/11/24		05/14/24 18:12		
<i>Surrogate: Nitrobenzene-d5</i>		23-120		67 %	05/11/24		05/14/24 18:12		
<i>Surrogate: 2,4,6-Tribromophenol</i>		19-122		63 %	05/11/24		05/14/24 18:12		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		68 %	05/11/24		05/14/24 18:12		
<i>Surrogate: Terphenyl-d14</i>		18-137		68 %	05/11/24		05/14/24 18:12		



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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-2 2.5-5'

4050829-03 (Soil)

Sampled on: 05/08/24 12:10

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC									
Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	05/14/24	05/14/24 21:43	MNB
Surrogate: <i>a,a,a</i> -Trifluorotoluene [FID]		85-115		100 %	05/14/24		05/14/24 21:43		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	41.7		mg/kg dry	9.8	9.8	1	05/13/24	05/14/24 16:24	TS
Surrogate: <i>o</i> -Terphenyl		70-130		95 %	05/13/24		05/14/24 16:24		
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	82		%			1	05/14/24	05/15/24 08:35	CZ
POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB									
Aroclor-1016	ND		ug/kg dry	48.8	48.8	1	05/12/24	05/13/24 17:49	ARS
Aroclor-1221	ND		ug/kg dry	48.8	48.8	1	05/12/24	05/13/24 17:49	ARS
Aroclor-1232	ND		ug/kg dry	48.8	48.8	1	05/12/24	05/13/24 17:49	ARS
Aroclor-1242	ND		ug/kg dry	48.8	48.8	1	05/12/24	05/13/24 17:49	ARS
Aroclor-1248	ND		ug/kg dry	48.8	48.8	1	05/12/24	05/13/24 17:49	ARS
Aroclor-1254	ND		ug/kg dry	48.8	48.8	1	05/12/24	05/13/24 17:49	ARS
Aroclor-1260	ND		ug/kg dry	48.8	48.8	1	05/12/24	05/13/24 17:49	ARS
Aroclor-1262	ND		ug/kg dry	48.8	48.8	1	05/12/24	05/13/24 17:49	ARS
Aroclor-1268	ND		ug/kg dry	48.8	48.8	1	05/12/24	05/13/24 17:49	ARS
Surrogate: Tetrachloro- <i>m</i> -xylene		40-150		105 %	05/12/24		05/13/24 17:49		
Surrogate: Decachlorobiphenyl		40-150		87 %	05/12/24		05/13/24 17:49		
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Arsenic	7.23		mg/kg dry	0.305	0.305	1	05/15/24	05/16/24 17:06	AWH
Barium	93.4		mg/kg dry	0.305	0.305	1	05/15/24	05/16/24 17:06	AWH
Cadmium	ND		mg/kg dry	0.305	0.305	1	05/15/24	05/16/24 17:06	AWH
Chromium	20.0		mg/kg dry	0.305	0.305	1	05/15/24	05/16/24 17:06	AWH
Lead	60.6		mg/kg dry	0.305	0.305	1	05/15/24	05/16/24 17:06	AWH
Mercury	0.259		mg/kg dry	0.0153	0.0153	1	05/15/24	05/16/24 17:06	AWH
Selenium	2.30		mg/kg dry	0.305	0.305	1	05/15/24	05/16/24 17:06	AWH
Silver	ND		mg/kg dry	0.305	0.305	1	05/15/24	05/16/24 17:06	AWH

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-2 11.5-14'

4050829-04 (Soil)

Sampled on: 05/08/24 12:15

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	10.8	10.8	1	05/15/24	05/15/24 19:50	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	53.8	53.8	1	05/15/24	05/15/24 19:50	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Benzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Bromobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Bromochloromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Bromodichloromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Bromoform	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Bromomethane	ND		ug/kg dry	5.4	5.4	1	05/15/24	05/15/24 19:50	WB
tert-Butanol (TBA)	ND		ug/kg dry	53.8	53.8	1	05/15/24	05/15/24 19:50	WB
2-Butanone (MEK)	ND		ug/kg dry	10.8	10.8	1	05/15/24	05/15/24 19:50	WB
n-Butylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
sec-Butylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
tert-Butylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Carbon disulfide	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Carbon tetrachloride	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Chlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Chloroethane	ND		ug/kg dry	5.4	5.4	1	05/15/24	05/15/24 19:50	WB
Chloroform	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Chloromethane	ND		ug/kg dry	5.4	5.4	1	05/15/24	05/15/24 19:50	WB
2-Chlorotoluene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
4-Chlorotoluene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Dibromochloromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Dibromomethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,2-Dichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,3-Dichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,4-Dichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Dichlorodifluoromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,1-Dichloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,2-Dichloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,1-Dichloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-2 11.5-14'

4050829-04 (Soil)

Sampled on: 05/08/24 12:15

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Dichlorofluoromethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,2-Dichloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,3-Dichloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
2,2-Dichloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,1-Dichloropropene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Ethylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Hexachlorobutadiene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
2-Hexanone	ND		ug/kg dry	10.8	10.8	1	05/15/24	05/15/24 19:50	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
4-Isopropyltoluene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
4-Methyl-2-pentanone	ND		ug/kg dry	10.8	10.8	1	05/15/24	05/15/24 19:50	WB
Methylene chloride	22.3	L	ug/kg dry	21.5	21.5	1	05/15/24	05/15/24 19:50	WB
Naphthalene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
n-Propylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Styrene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Tetrachloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Toluene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,1,1-Trichloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,1,2-Trichloroethane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Trichloroethene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,2,3-Trichloropropane	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-2 11.5-14'

4050829-04 (Soil)

Sampled on: 05/08/24 12:15

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Vinyl chloride	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
o-Xylene	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
m- & p-Xylenes	ND		ug/kg dry	5.4	2.2	1	05/15/24	05/15/24 19:50	WB
Surrogate: 1,2-Dichloroethane-d4		70-130		102 %	05/15/24		05/15/24 19:50		
Surrogate: Toluene-d8		75-120		94 %	05/15/24		05/15/24 19:50		
Surrogate: 4-Bromofluorobenzene		65-120		99 %	05/15/24		05/15/24 19:50		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Acenaphthylene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Anthracene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Benzo[a]anthracene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Benzo[b]fluoranthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Benzo[k]fluoranthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Benzo[g,h,i]perylene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Benzo[a]pyrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Chrysene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Fluoranthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Fluorene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
2-Methylnaphthalene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Naphthalene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Phenanthrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Pyrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 18:33	EH
Surrogate: 2-Fluorophenol		23-121		91 %	05/11/24		05/14/24 18:33		
Surrogate: Phenol-d5		24-113		96 %	05/11/24		05/14/24 18:33		
Surrogate: Nitrobenzene-d5		23-120		95 %	05/11/24		05/14/24 18:33		
Surrogate: 2,4,6-Tribromophenol		19-122		102 %	05/11/24		05/14/24 18:33		
Surrogate: 2-Fluorobiphenyl		30-115		99 %	05/11/24		05/14/24 18:33		
Surrogate: Terphenyl-d14		18-137		101 %	05/11/24		05/14/24 18:33		

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-2 11.5-14'

4050829-04 (Soil)

Sampled on: 05/08/24 12:15

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC

Gasoline-Range Organics	ND		mg/kg dry	0.11	0.11	1	05/14/24	05/14/24 22:10	MNB
<i>Surrogate: a,a,a-Trifluorotoluene [FID]</i>			85-115	102 %	05/14/24		05/14/24 22:10		

DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)

Diesel-Range Organics (C10-C28)	ND		mg/kg dry	8.6	8.6	1	05/13/24	05/14/24 16:49	TS
<i>Surrogate: o-Terphenyl</i>			70-130	74 %	05/13/24		05/14/24 16:49		

PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids

Percent Solids	93		%			1	05/14/24	05/15/24 08:35	CZ
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POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB

Aroclor-1016	ND		ug/kg dry	43.0	43.0	1	05/12/24	05/13/24 18:03	ARS
Aroclor-1221	ND		ug/kg dry	43.0	43.0	1	05/12/24	05/13/24 18:03	ARS
Aroclor-1232	ND		ug/kg dry	43.0	43.0	1	05/12/24	05/13/24 18:03	ARS
Aroclor-1242	ND		ug/kg dry	43.0	43.0	1	05/12/24	05/13/24 18:03	ARS
Aroclor-1248	ND		ug/kg dry	43.0	43.0	1	05/12/24	05/13/24 18:03	ARS
Aroclor-1254	ND		ug/kg dry	43.0	43.0	1	05/12/24	05/13/24 18:03	ARS
Aroclor-1260	ND		ug/kg dry	43.0	43.0	1	05/12/24	05/13/24 18:03	ARS
Aroclor-1262	ND		ug/kg dry	43.0	43.0	1	05/12/24	05/13/24 18:03	ARS
Aroclor-1268	ND		ug/kg dry	43.0	43.0	1	05/12/24	05/13/24 18:03	ARS
<i>Surrogate: Tetrachloro-m-xylene</i>			40-150	107 %	05/12/24		05/13/24 18:03		
<i>Surrogate: Decachlorobiphenyl</i>			40-150	91 %	05/12/24		05/13/24 18:03		

Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion

Arsenic	3.16		mg/kg dry	0.269	0.269	1	05/15/24	05/16/24 17:32	AWH
Barium	21.2		mg/kg dry	0.269	0.269	1	05/15/24	05/16/24 17:32	AWH
Cadmium	ND		mg/kg dry	0.269	0.269	1	05/15/24	05/16/24 17:32	AWH
Chromium	7.94		mg/kg dry	0.269	0.269	1	05/15/24	05/16/24 17:32	AWH
Lead	4.37		mg/kg dry	0.269	0.269	1	05/15/24	05/16/24 17:32	AWH
Mercury	ND		mg/kg dry	0.0134	0.0134	1	05/15/24	05/16/24 17:32	AWH
Selenium	0.864		mg/kg dry	0.269	0.269	1	05/15/24	05/16/24 17:32	AWH
Silver	ND		mg/kg dry	0.269	0.269	1	05/15/24	05/16/24 17:32	AWH



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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-3 2.5-5'

4050829-05 (Soil)
Sampled on: 05/08/24 12:30

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	12.0	12.0	1	05/15/24	05/15/24 20:18	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	60.0	60.0	1	05/15/24	05/15/24 20:18	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Benzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Bromobenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Bromochloromethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Bromodichloromethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Bromoform	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Bromomethane	ND		ug/kg dry	6.0	6.0	1	05/15/24	05/15/24 20:18	WB
tert-Butanol (TBA)	ND		ug/kg dry	60.0	60.0	1	05/15/24	05/15/24 20:18	WB
2-Butanone (MEK)	ND		ug/kg dry	12.0	12.0	1	05/15/24	05/15/24 20:18	WB
n-Butylbenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
sec-Butylbenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
tert-Butylbenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Carbon disulfide	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Carbon tetrachloride	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Chlorobenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Chloroethane	ND		ug/kg dry	6.0	6.0	1	05/15/24	05/15/24 20:18	WB
Chloroform	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Chloromethane	ND		ug/kg dry	6.0	6.0	1	05/15/24	05/15/24 20:18	WB
2-Chlorotoluene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
4-Chlorotoluene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Dibromochloromethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Dibromomethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,2-Dichlorobenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,3-Dichlorobenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,4-Dichlorobenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Dichlorodifluoromethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,1-Dichloroethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,2-Dichloroethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,1-Dichloroethene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-3 2.5-5'

4050829-05 (Soil)

Sampled on: 05/08/24 12:30

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Dichlorofluoromethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,2-Dichloropropane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,3-Dichloropropane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
2,2-Dichloropropane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,1-Dichloropropene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Ethylbenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Hexachlorobutadiene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
2-Hexanone	ND		ug/kg dry	12.0	12.0	1	05/15/24	05/15/24 20:18	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
4-Isopropyltoluene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
4-Methyl-2-pentanone	ND		ug/kg dry	12.0	12.0	1	05/15/24	05/15/24 20:18	WB
Methylene chloride	25.6	L	ug/kg dry	24.0	24.0	1	05/15/24	05/15/24 20:18	WB
Naphthalene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
n-Propylbenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Styrene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Tetrachloroethene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Toluene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,1,1-Trichloroethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,1,2-Trichloroethane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Trichloroethene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,2,3-Trichloropropane	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-3 2.5-5'

4050829-05 (Soil)

Sampled on: 05/08/24 12:30

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Vinyl chloride	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
o-Xylene	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
m- & p-Xylenes	ND		ug/kg dry	6.0	2.4	1	05/15/24	05/15/24 20:18	WB
Surrogate: 1,2-Dichloroethane-d4		70-130		101 %	05/15/24		05/15/24 20:18		
Surrogate: Toluene-d8		75-120		94 %	05/15/24		05/15/24 20:18		
Surrogate: 4-Bromofluorobenzene		65-120		99 %	05/15/24		05/15/24 20:18		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Acenaphthylene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Anthracene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Benzo[a]anthracene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Benzo[b]fluoranthene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Benzo[k]fluoranthene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Benzo[g,h,i]perylene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Benzo[a]pyrene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Chrysene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Fluoranthene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Fluorene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
2-Methylnaphthalene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Naphthalene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Phenanthrene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Pyrene	ND		ug/kg dry	96	96	1	05/11/24	05/14/24 18:54	EH
Surrogate: 2-Fluorophenol		23-121		88 %	05/11/24		05/14/24 18:54		
Surrogate: Phenol-d5		24-113		92 %	05/11/24		05/14/24 18:54		
Surrogate: Nitrobenzene-d5		23-120		95 %	05/11/24		05/14/24 18:54		
Surrogate: 2,4,6-Tribromophenol		19-122		95 %	05/11/24		05/14/24 18:54		
Surrogate: 2-Fluorobiphenyl		30-115		98 %	05/11/24		05/14/24 18:54		
Surrogate: Terphenyl-d14		18-137		100 %	05/11/24		05/14/24 18:54		

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Will Brewington, President

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-3 2.5-5'

4050829-05 (Soil)
Sampled on: 05/08/24 12:30

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC

Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	05/14/24	05/14/24 22:37	MNB
<i>Surrogate: a,a,a-Trifluorotoluene [FID]</i>		85-115		102 %	05/14/24		05/14/24 22:37		

DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)

Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.6	9.6	1	05/13/24	05/14/24 17:14	TS
<i>Surrogate: o-Terphenyl</i>		70-130		91 %	05/13/24		05/14/24 17:14		

PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids

Percent Solids	83		%			1	05/14/24	05/15/24 08:35	CZ
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POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB

Aroclor-1016	ND		ug/kg dry	48.0	48.0	1	05/12/24	05/13/24 18:17	ARS
Aroclor-1221	ND		ug/kg dry	48.0	48.0	1	05/12/24	05/13/24 18:17	ARS
Aroclor-1232	ND		ug/kg dry	48.0	48.0	1	05/12/24	05/13/24 18:17	ARS
Aroclor-1242	ND		ug/kg dry	48.0	48.0	1	05/12/24	05/13/24 18:17	ARS
Aroclor-1248	ND		ug/kg dry	48.0	48.0	1	05/12/24	05/13/24 18:17	ARS
Aroclor-1254	ND		ug/kg dry	48.0	48.0	1	05/12/24	05/13/24 18:17	ARS
Aroclor-1260	ND		ug/kg dry	48.0	48.0	1	05/12/24	05/13/24 18:17	ARS
Aroclor-1262	ND		ug/kg dry	48.0	48.0	1	05/12/24	05/13/24 18:17	ARS
Aroclor-1268	ND		ug/kg dry	48.0	48.0	1	05/12/24	05/13/24 18:17	ARS
<i>Surrogate: Tetrachloro-m-xylene</i>		40-150		96 %	05/12/24		05/13/24 18:17		
<i>Surrogate: Decachlorobiphenyl</i>		40-150		82 %	05/12/24		05/13/24 18:17		

Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion

Arsenic	6.03		mg/kg dry	0.300	0.300	1	05/15/24	05/16/24 17:35	AWH
Barium	61.6		mg/kg dry	0.300	0.300	1	05/15/24	05/16/24 17:35	AWH
Cadmium	ND		mg/kg dry	0.300	0.300	1	05/15/24	05/16/24 17:35	AWH
Chromium	22.7		mg/kg dry	0.300	0.300	1	05/15/24	05/16/24 17:35	AWH
Lead	10.9		mg/kg dry	0.300	0.300	1	05/15/24	05/16/24 17:35	AWH
Mercury	0.0430		mg/kg dry	0.0150	0.0150	1	05/15/24	05/16/24 17:35	AWH
Selenium	0.805		mg/kg dry	0.300	0.300	1	05/15/24	05/16/24 17:35	AWH
Silver	ND		mg/kg dry	0.300	0.300	1	05/15/24	05/16/24 17:35	AWH



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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-3 11.5-14'

4050829-06 (Soil)

Sampled on: 05/08/24 12:35

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	10.7	10.7	1	05/16/24	05/16/24 12:21	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	53.7	53.7	1	05/16/24	05/16/24 12:21	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Benzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Bromobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Bromochloromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Bromodichloromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Bromoform	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Bromomethane	ND		ug/kg dry	5.4	5.4	1	05/16/24	05/16/24 12:21	WB
tert-Butanol (TBA)	ND		ug/kg dry	53.7	53.7	1	05/16/24	05/16/24 12:21	WB
2-Butanone (MEK)	ND		ug/kg dry	10.7	10.7	1	05/16/24	05/16/24 12:21	WB
n-Butylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
sec-Butylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
tert-Butylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Carbon disulfide	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Carbon tetrachloride	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Chlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Chloroethane	ND		ug/kg dry	5.4	5.4	1	05/16/24	05/16/24 12:21	WB
Chloroform	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Chloromethane	ND		ug/kg dry	5.4	5.4	1	05/16/24	05/16/24 12:21	WB
2-Chlorotoluene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
4-Chlorotoluene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Dibromochloromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Dibromomethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,2-Dichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,3-Dichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,4-Dichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Dichlorodifluoromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,1-Dichloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,2-Dichloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,1-Dichloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-3 11.5-14'

4050829-06 (Soil)
Sampled on: 05/08/24 12:35

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Dichlorofluoromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,2-Dichloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,3-Dichloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
2,2-Dichloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,1-Dichloropropene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Ethylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Hexachlorobutadiene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
2-Hexanone	ND		ug/kg dry	10.7	10.7	1	05/16/24	05/16/24 12:21	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
4-Isopropyltoluene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
4-Methyl-2-pentanone	ND		ug/kg dry	10.7	10.7	1	05/16/24	05/16/24 12:21	WB
Methylene chloride	28.7	L	ug/kg dry	21.5	21.5	1	05/16/24	05/16/24 12:21	WB
Naphthalene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
n-Propylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Styrene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Tetrachloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Toluene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,1,1-Trichloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,1,2-Trichloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Trichloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,2,3-Trichloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-3 11.5-14'

4050829-06 (Soil)

Sampled on: 05/08/24 12:35

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Vinyl chloride	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
o-Xylene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
m- & p-Xylenes	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 12:21	WB
Surrogate: 1,2-Dichloroethane-d4		70-130		105 %	05/16/24		05/16/24 12:21		
Surrogate: Toluene-d8		75-120		95 %	05/16/24		05/16/24 12:21		
Surrogate: 4-Bromofluorobenzene		65-120		98 %	05/16/24		05/16/24 12:21		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Acenaphthylene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Anthracene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Benzo[a]anthracene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Benzo[b]fluoranthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Benzo[k]fluoranthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Benzo[g,h,i]perylene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Benzo[a]pyrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Chrysene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Fluoranthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Fluorene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
2-Methylnaphthalene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Naphthalene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Phenanthrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Pyrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:15	EH
Surrogate: 2-Fluorophenol		23-121		97 %	05/11/24		05/14/24 19:15		
Surrogate: Phenol-d5		24-113		99 %	05/11/24		05/14/24 19:15		
Surrogate: Nitrobenzene-d5		23-120		96 %	05/11/24		05/14/24 19:15		
Surrogate: 2,4,6-Tribromophenol		19-122		100 %	05/11/24		05/14/24 19:15		
Surrogate: 2-Fluorobiphenyl		30-115		100 %	05/11/24		05/14/24 19:15		
Surrogate: Terphenyl-d14		18-137		101 %	05/11/24		05/14/24 19:15		

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-3 11.5-14'

4050829-06 (Soil)
Sampled on: 05/08/24 12:35

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC

Gasoline-Range Organics	ND		mg/kg dry	0.11	0.11	1	05/14/24	05/14/24 23:04	MNB
<i>Surrogate: a,a,a-Trifluorotoluene [FID]</i>			85-115	102 %	05/14/24		05/14/24 23:04		

DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)

Diesel-Range Organics (C10-C28)	ND		mg/kg dry	8.6	8.6	1	05/13/24	05/14/24 17:39	TS
<i>Surrogate: o-Terphenyl</i>			70-130	97 %	05/13/24		05/14/24 17:39		

PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids

Percent Solids	93		%			1	05/14/24	05/15/24 08:35	CZ
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POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB

Aroclor-1016	ND		ug/kg dry	42.9	42.9	1	05/12/24	05/13/24 18:31	ARS
Aroclor-1221	ND		ug/kg dry	42.9	42.9	1	05/12/24	05/13/24 18:31	ARS
Aroclor-1232	ND		ug/kg dry	42.9	42.9	1	05/12/24	05/13/24 18:31	ARS
Aroclor-1242	ND		ug/kg dry	42.9	42.9	1	05/12/24	05/13/24 18:31	ARS
Aroclor-1248	ND		ug/kg dry	42.9	42.9	1	05/12/24	05/13/24 18:31	ARS
Aroclor-1254	ND		ug/kg dry	42.9	42.9	1	05/12/24	05/13/24 18:31	ARS
Aroclor-1260	ND		ug/kg dry	42.9	42.9	1	05/12/24	05/13/24 18:31	ARS
Aroclor-1262	ND		ug/kg dry	42.9	42.9	1	05/12/24	05/13/24 18:31	ARS
Aroclor-1268	ND		ug/kg dry	42.9	42.9	1	05/12/24	05/13/24 18:31	ARS
<i>Surrogate: Tetrachloro-m-xylene</i>			40-150	104 %	05/12/24		05/13/24 18:31		
<i>Surrogate: Decachlorobiphenyl</i>			40-150	91 %	05/12/24		05/13/24 18:31		

Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion

Arsenic	3.32		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:37	AWH
Barium	21.8		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:37	AWH
Cadmium	ND		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:37	AWH
Chromium	10.1		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:37	AWH
Lead	4.88		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:37	AWH
Mercury	ND		mg/kg dry	0.0134	0.0134	1	05/15/24	05/16/24 17:37	AWH
Selenium	0.623		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:37	AWH
Silver	ND		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:37	AWH



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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-4 2.5-5'

4050829-07 (Soil)

Sampled on: 05/08/24 12:40

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	11.9	11.9	1	05/16/24	05/16/24 12:48	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	59.3	59.3	1	05/16/24	05/16/24 12:48	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Benzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Bromobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Bromochloromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Bromodichloromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Bromoform	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Bromomethane	ND		ug/kg dry	5.9	5.9	1	05/16/24	05/16/24 12:48	WB
tert-Butanol (TBA)	ND		ug/kg dry	59.3	59.3	1	05/16/24	05/16/24 12:48	WB
2-Butanone (MEK)	ND		ug/kg dry	11.9	11.9	1	05/16/24	05/16/24 12:48	WB
n-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
sec-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
tert-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Carbon disulfide	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Carbon tetrachloride	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Chlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Chloroethane	ND		ug/kg dry	5.9	5.9	1	05/16/24	05/16/24 12:48	WB
Chloroform	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Chloromethane	ND		ug/kg dry	5.9	5.9	1	05/16/24	05/16/24 12:48	WB
2-Chlorotoluene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
4-Chlorotoluene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Dibromochloromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Dibromomethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,2-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,3-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,4-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Dichlorodifluoromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,1-Dichloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,2-Dichloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,1-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-4 2.5-5'

4050829-07 (Soil)

Sampled on: 05/08/24 12:40

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Dichlorofluoromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,2-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,3-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
2,2-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,1-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Ethylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Hexachlorobutadiene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
2-Hexanone	ND		ug/kg dry	11.9	11.9	1	05/16/24	05/16/24 12:48	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
4-Isopropyltoluene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
4-Methyl-2-pentanone	ND		ug/kg dry	11.9	11.9	1	05/16/24	05/16/24 12:48	WB
Methylene chloride	38.7	L	ug/kg dry	23.7	23.7	1	05/16/24	05/16/24 12:48	WB
Naphthalene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
n-Propylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Styrene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Tetrachloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Toluene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,1,1-Trichloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,1,2-Trichloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Trichloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,2,3-Trichloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-4 2.5-5'

4050829-07 (Soil)

Sampled on: 05/08/24 12:40

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
Vinyl chloride	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
o-Xylene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
m- & p-Xylenes	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 12:48	WB
<i>Surrogate: 1,2-Dichloroethane-d4</i>		70-130		103 %	05/16/24		05/16/24 12:48		
<i>Surrogate: Toluene-d8</i>		75-120		95 %	05/16/24		05/16/24 12:48		
<i>Surrogate: 4-Bromofluorobenzene</i>		65-120		96 %	05/16/24		05/16/24 12:48		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Acenaphthylene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Anthracene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Benzo[a]anthracene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Benzo[b]fluoranthene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Benzo[k]fluoranthene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Benzo[g,h,i]perylene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Benzo[a]pyrene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Chrysene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Fluoranthene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Fluorene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
2-Methylnaphthalene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Naphthalene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Phenanthrene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
Pyrene	ND		ug/kg dry	95	95	1	05/11/24	05/14/24 19:36	EH
<i>Surrogate: 2-Fluorophenol</i>		23-121		93 %	05/11/24		05/14/24 19:36		
<i>Surrogate: Phenol-d5</i>		24-113		96 %	05/11/24		05/14/24 19:36		
<i>Surrogate: Nitrobenzene-d5</i>		23-120		98 %	05/11/24		05/14/24 19:36		
<i>Surrogate: 2,4,6-Tribromophenol</i>		19-122		98 %	05/11/24		05/14/24 19:36		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		102 %	05/11/24		05/14/24 19:36		
<i>Surrogate: Terphenyl-d14</i>		18-137		102 %	05/11/24		05/14/24 19:36		

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-4 2.5-5'

4050829-07 (Soil)
Sampled on: 05/08/24 12:40

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC

Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	05/14/24	05/14/24 23:32	MNB
<i>Surrogate: a,a,a-Trifluorotoluene [FID]</i>			85-115	102 %	05/14/24		05/14/24 23:32		

DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)

Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.5	9.5	1	05/13/24	05/14/24 18:04	TS
<i>Surrogate: o-Terphenyl</i>			70-130	101 %	05/13/24		05/14/24 18:04		

PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids

Percent Solids	84		%			1	05/14/24	05/15/24 08:35	CZ
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POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB

Aroclor-1016	ND		ug/kg dry	47.4	47.4	1	05/12/24	05/13/24 18:44	ARS
Aroclor-1221	ND		ug/kg dry	47.4	47.4	1	05/12/24	05/13/24 18:44	ARS
Aroclor-1232	ND		ug/kg dry	47.4	47.4	1	05/12/24	05/13/24 18:44	ARS
Aroclor-1242	ND		ug/kg dry	47.4	47.4	1	05/12/24	05/13/24 18:44	ARS
Aroclor-1248	ND		ug/kg dry	47.4	47.4	1	05/12/24	05/13/24 18:44	ARS
Aroclor-1254	ND		ug/kg dry	47.4	47.4	1	05/12/24	05/13/24 18:44	ARS
Aroclor-1260	ND		ug/kg dry	47.4	47.4	1	05/12/24	05/13/24 18:44	ARS
Aroclor-1262	ND		ug/kg dry	47.4	47.4	1	05/12/24	05/13/24 18:44	ARS
Aroclor-1268	ND		ug/kg dry	47.4	47.4	1	05/12/24	05/13/24 18:44	ARS
<i>Surrogate: Tetrachloro-m-xylene</i>			40-150	104 %	05/12/24		05/13/24 18:44		
<i>Surrogate: Decachlorobiphenyl</i>			40-150	94 %	05/12/24		05/13/24 18:44		

Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion

Arsenic	5.56		mg/kg dry	0.296	0.296	1	05/15/24	05/16/24 17:40	AWH
Barium	54.4		mg/kg dry	0.296	0.296	1	05/15/24	05/16/24 17:40	AWH
Cadmium	ND		mg/kg dry	0.296	0.296	1	05/15/24	05/16/24 17:40	AWH
Chromium	18.2		mg/kg dry	0.296	0.296	1	05/15/24	05/16/24 17:40	AWH
Lead	10.9		mg/kg dry	0.296	0.296	1	05/15/24	05/16/24 17:40	AWH
Mercury	0.0723		mg/kg dry	0.0148	0.0148	1	05/15/24	05/16/24 17:40	AWH
Selenium	0.954		mg/kg dry	0.296	0.296	1	05/15/24	05/16/24 17:40	AWH
Silver	ND		mg/kg dry	0.296	0.296	1	05/15/24	05/16/24 17:40	AWH



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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-4 11.5-14'

4050829-08 (Soil)

Sampled on: 05/08/24 12:45

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	10.7	10.7	1	05/16/24	05/16/24 13:16	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	53.5	53.5	1	05/16/24	05/16/24 13:16	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Benzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Bromobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Bromochloromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Bromodichloromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Bromoform	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Bromomethane	ND		ug/kg dry	5.4	5.4	1	05/16/24	05/16/24 13:16	WB
tert-Butanol (TBA)	ND		ug/kg dry	53.5	53.5	1	05/16/24	05/16/24 13:16	WB
2-Butanone (MEK)	ND		ug/kg dry	10.7	10.7	1	05/16/24	05/16/24 13:16	WB
n-Butylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
sec-Butylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
tert-Butylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Carbon disulfide	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Carbon tetrachloride	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Chlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Chloroethane	ND		ug/kg dry	5.4	5.4	1	05/16/24	05/16/24 13:16	WB
Chloroform	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Chloromethane	ND		ug/kg dry	5.4	5.4	1	05/16/24	05/16/24 13:16	WB
2-Chlorotoluene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
4-Chlorotoluene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Dibromochloromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Dibromomethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,2-Dichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,3-Dichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,4-Dichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Dichlorodifluoromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,1-Dichloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,2-Dichloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,1-Dichloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-4 11.5-14'

4050829-08 (Soil)

Sampled on: 05/08/24 12:45

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Dichlorofluoromethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,2-Dichloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,3-Dichloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
2,2-Dichloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,1-Dichloropropene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Ethylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Hexachlorobutadiene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
2-Hexanone	ND		ug/kg dry	10.7	10.7	1	05/16/24	05/16/24 13:16	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
4-Isopropyltoluene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
4-Methyl-2-pentanone	ND		ug/kg dry	10.7	10.7	1	05/16/24	05/16/24 13:16	WB
Methylene chloride	34.2	L	ug/kg dry	21.4	21.4	1	05/16/24	05/16/24 13:16	WB
Naphthalene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
n-Propylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Styrene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Tetrachloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Toluene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,1,1-Trichloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,1,2-Trichloroethane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Trichloroethene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,2,3-Trichloropropane	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-4 11.5-14'

4050829-08 (Soil)

Sampled on: 05/08/24 12:45

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Vinyl chloride	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
o-Xylene	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
m- & p-Xylenes	ND		ug/kg dry	5.4	2.1	1	05/16/24	05/16/24 13:16	WB
Surrogate: 1,2-Dichloroethane-d4		70-130		104 %	05/16/24		05/16/24 13:16		
Surrogate: Toluene-d8		75-120		95 %	05/16/24		05/16/24 13:16		
Surrogate: 4-Bromofluorobenzene		65-120		99 %	05/16/24		05/16/24 13:16		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Acenaphthylene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Anthracene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Benzo[a]anthracene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Benzo[b]fluoranthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Benzo[k]fluoranthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Benzo[g,h,i]perylene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Benzo[a]pyrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Chrysene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Fluoranthene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Fluorene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
2-Methylnaphthalene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Naphthalene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Phenanthrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Pyrene	ND		ug/kg dry	86	86	1	05/11/24	05/14/24 19:58	EH
Surrogate: 2-Fluorophenol		23-121		91 %	05/11/24		05/14/24 19:58		
Surrogate: Phenol-d5		24-113		95 %	05/11/24		05/14/24 19:58		
Surrogate: Nitrobenzene-d5		23-120		95 %	05/11/24		05/14/24 19:58		
Surrogate: 2,4,6-Tribromophenol		19-122		101 %	05/11/24		05/14/24 19:58		
Surrogate: 2-Fluorobiphenyl		30-115		99 %	05/11/24		05/14/24 19:58		
Surrogate: Terphenyl-d14		18-137		101 %	05/11/24		05/14/24 19:58		

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-4 11.5-14'

4050829-08 (Soil)

Sampled on: 05/08/24 12:45

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC

Gasoline-Range Organics	ND		mg/kg dry	0.11	0.11	1	05/14/24	05/14/24 23:59	MNB
<i>Surrogate: a,a,a-Trifluorotoluene [FID]</i>		85-115		102 %	05/14/24		05/14/24 23:59		

DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)

Diesel-Range Organics (C10-C28)	ND		mg/kg dry	8.6	8.6	1	05/13/24	05/14/24 18:29	TS
<i>Surrogate: o-Terphenyl</i>		70-130		113 %	05/13/24		05/14/24 18:29		

PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids

Percent Solids	93		%			1	05/14/24	05/15/24 08:35	CZ
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POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB

Aroclor-1016	ND		ug/kg dry	42.8	42.8	1	05/12/24	05/13/24 18:58	ARS
Aroclor-1221	ND		ug/kg dry	42.8	42.8	1	05/12/24	05/13/24 18:58	ARS
Aroclor-1232	ND		ug/kg dry	42.8	42.8	1	05/12/24	05/13/24 18:58	ARS
Aroclor-1242	ND		ug/kg dry	42.8	42.8	1	05/12/24	05/13/24 18:58	ARS
Aroclor-1248	ND		ug/kg dry	42.8	42.8	1	05/12/24	05/13/24 18:58	ARS
Aroclor-1254	ND		ug/kg dry	42.8	42.8	1	05/12/24	05/13/24 18:58	ARS
Aroclor-1260	ND		ug/kg dry	42.8	42.8	1	05/12/24	05/13/24 18:58	ARS
Aroclor-1262	ND		ug/kg dry	42.8	42.8	1	05/12/24	05/13/24 18:58	ARS
Aroclor-1268	ND		ug/kg dry	42.8	42.8	1	05/12/24	05/13/24 18:58	ARS
<i>Surrogate: Tetrachloro-m-xylene</i>		40-150		109 %	05/12/24		05/13/24 18:58		
<i>Surrogate: Decachlorobiphenyl</i>		40-150		96 %	05/12/24		05/13/24 18:58		

Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion

Arsenic	3.11		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:42	AWH
Barium	21.1		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:42	AWH
Cadmium	ND		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:42	AWH
Chromium	12.1		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:42	AWH
Lead	4.37		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:42	AWH
Mercury	ND		mg/kg dry	0.0134	0.0134	1	05/15/24	05/16/24 17:42	AWH
Selenium	0.966		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:42	AWH
Silver	ND		mg/kg dry	0.268	0.268	1	05/15/24	05/16/24 17:42	AWH

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-5 2.5-5'

4050829-09 (Soil)
Sampled on: 05/08/24 12:50

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	11.8	11.8	1	05/16/24	05/16/24 13:43	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	58.8	58.8	1	05/16/24	05/16/24 13:43	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Benzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Bromobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Bromochloromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Bromodichloromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Bromoform	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Bromomethane	ND		ug/kg dry	5.9	5.9	1	05/16/24	05/16/24 13:43	WB
tert-Butanol (TBA)	ND		ug/kg dry	58.8	58.8	1	05/16/24	05/16/24 13:43	WB
2-Butanone (MEK)	ND		ug/kg dry	11.8	11.8	1	05/16/24	05/16/24 13:43	WB
n-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
sec-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
tert-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Carbon disulfide	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Carbon tetrachloride	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Chlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Chloroethane	ND		ug/kg dry	5.9	5.9	1	05/16/24	05/16/24 13:43	WB
Chloroform	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Chloromethane	ND		ug/kg dry	5.9	5.9	1	05/16/24	05/16/24 13:43	WB
2-Chlorotoluene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
4-Chlorotoluene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Dibromochloromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Dibromomethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,2-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,3-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,4-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Dichlorodifluoromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,1-Dichloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,2-Dichloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,1-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-5 2.5-5'

4050829-09 (Soil)
Sampled on: 05/08/24 12:50

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Dichlorofluoromethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,2-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,3-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
2,2-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,1-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Ethylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Hexachlorobutadiene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
2-Hexanone	ND		ug/kg dry	11.8	11.8	1	05/16/24	05/16/24 13:43	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
4-Isopropyltoluene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
4-Methyl-2-pentanone	ND		ug/kg dry	11.8	11.8	1	05/16/24	05/16/24 13:43	WB
Methylene chloride	45.0	L	ug/kg dry	23.5	23.5	1	05/16/24	05/16/24 13:43	WB
Naphthalene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
n-Propylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Styrene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Tetrachloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Toluene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,1,1-Trichloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,1,2-Trichloroethane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Trichloroethene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,2,3-Trichloropropane	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-5 2.5-5'

4050829-09 (Soil)

Sampled on: 05/08/24 12:50

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Vinyl chloride	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
o-Xylene	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
m- & p-Xylenes	ND		ug/kg dry	5.9	2.4	1	05/16/24	05/16/24 13:43	WB
Surrogate: 1,2-Dichloroethane-d4		70-130		104 %	05/16/24		05/16/24 13:43		
Surrogate: Toluene-d8		75-120		94 %	05/16/24		05/16/24 13:43		
Surrogate: 4-Bromofluorobenzene		65-120		97 %	05/16/24		05/16/24 13:43		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Acenaphthylene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Anthracene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Benzo[a]anthracene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Benzo[b]fluoranthene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Benzo[k]fluoranthene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Benzo[g,h,i]perylene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Benzo[a]pyrene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Chrysene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Fluoranthene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Fluorene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
2-Methylnaphthalene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Naphthalene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Phenanthrene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Pyrene	ND		ug/kg dry	94	94	1	05/11/24	05/14/24 20:19	EH
Surrogate: 2-Fluorophenol		23-121		87 %	05/11/24		05/14/24 20:19		
Surrogate: Phenol-d5		24-113		92 %	05/11/24		05/14/24 20:19		
Surrogate: Nitrobenzene-d5		23-120		93 %	05/11/24		05/14/24 20:19		
Surrogate: 2,4,6-Tribromophenol		19-122		93 %	05/11/24		05/14/24 20:19		
Surrogate: 2-Fluorobiphenyl		30-115		98 %	05/11/24		05/14/24 20:19		
Surrogate: Terphenyl-d14		18-137		95 %	05/11/24		05/14/24 20:19		

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-5 2.5-5'

4050829-09 (Soil)
Sampled on: 05/08/24 12:50

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC

Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	05/14/24	05/15/24 00:26	MNB
<i>Surrogate: a,a,a-Trifluorotoluene [FID]</i>			85-115	102 %	05/14/24		05/15/24 00:26		

DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)

Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.4	9.4	1	05/13/24	05/14/24 18:54	TS
<i>Surrogate: o-Terphenyl</i>			70-130	98 %	05/13/24		05/14/24 18:54		

PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids

Percent Solids	85		%			1	05/14/24	05/15/24 08:35	CZ
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POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB

Aroclor-1016	ND		ug/kg dry	47.1	47.1	1	05/12/24	05/13/24 19:12	ARS
Aroclor-1221	ND		ug/kg dry	47.1	47.1	1	05/12/24	05/13/24 19:12	ARS
Aroclor-1232	ND		ug/kg dry	47.1	47.1	1	05/12/24	05/13/24 19:12	ARS
Aroclor-1242	ND		ug/kg dry	47.1	47.1	1	05/12/24	05/13/24 19:12	ARS
Aroclor-1248	ND		ug/kg dry	47.1	47.1	1	05/12/24	05/13/24 19:12	ARS
Aroclor-1254	ND		ug/kg dry	47.1	47.1	1	05/12/24	05/13/24 19:12	ARS
Aroclor-1260	ND		ug/kg dry	47.1	47.1	1	05/12/24	05/13/24 19:12	ARS
Aroclor-1262	ND		ug/kg dry	47.1	47.1	1	05/12/24	05/13/24 19:12	ARS
Aroclor-1268	ND		ug/kg dry	47.1	47.1	1	05/12/24	05/13/24 19:12	ARS
<i>Surrogate: Tetrachloro-m-xylene</i>			40-150	102 %	05/12/24		05/13/24 19:12		
<i>Surrogate: Decachlorobiphenyl</i>			40-150	91 %	05/12/24		05/13/24 19:12		

Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion

Arsenic	4.76		mg/kg dry	0.294	0.294	1	05/15/24	05/16/24 17:45	AWH
Barium	51.1		mg/kg dry	0.294	0.294	1	05/15/24	05/16/24 17:45	AWH
Cadmium	ND		mg/kg dry	0.294	0.294	1	05/15/24	05/16/24 17:45	AWH
Chromium	15.5		mg/kg dry	0.294	0.294	1	05/15/24	05/16/24 17:45	AWH
Lead	10.1		mg/kg dry	0.294	0.294	1	05/15/24	05/16/24 17:45	AWH
Mercury	0.0243		mg/kg dry	0.0147	0.0147	1	05/15/24	05/16/24 17:45	AWH
Selenium	0.976		mg/kg dry	0.294	0.294	1	05/15/24	05/16/24 17:45	AWH
Silver	ND		mg/kg dry	0.294	0.294	1	05/15/24	05/16/24 17:45	AWH

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-5 11-13.5'

4050829-10 (Soil)
Sampled on: 05/08/24 12:55

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS									
Acetone	ND		ug/kg dry	10.4	10.4	1	05/16/24	05/16/24 14:11	WB
tert-Amyl alcohol (TAA)	ND		ug/kg dry	52.2	52.2	1	05/16/24	05/16/24 14:11	WB
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Benzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Bromobenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Bromochloromethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Bromodichloromethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Bromoform	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Bromomethane	ND		ug/kg dry	5.2	5.2	1	05/16/24	05/16/24 14:11	WB
tert-Butanol (TBA)	ND		ug/kg dry	52.2	52.2	1	05/16/24	05/16/24 14:11	WB
2-Butanone (MEK)	ND		ug/kg dry	10.4	10.4	1	05/16/24	05/16/24 14:11	WB
n-Butylbenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
sec-Butylbenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
tert-Butylbenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Carbon disulfide	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Carbon tetrachloride	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Chlorobenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Chloroethane	ND		ug/kg dry	5.2	5.2	1	05/16/24	05/16/24 14:11	WB
Chloroform	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Chloromethane	ND		ug/kg dry	5.2	5.2	1	05/16/24	05/16/24 14:11	WB
2-Chlorotoluene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
4-Chlorotoluene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Dibromochloromethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Dibromomethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,2-Dichlorobenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,3-Dichlorobenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,4-Dichlorobenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Dichlorodifluoromethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,1-Dichloroethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,2-Dichloroethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,1-Dichloroethene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-5 11-13.5'

4050829-10 (Soil)
Sampled on: 05/08/24 12:55

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
trans-1,2-Dichloroethene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Dichlorofluoromethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,2-Dichloropropane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,3-Dichloropropane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
2,2-Dichloropropane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,1-Dichloropropene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
cis-1,3-Dichloropropene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
trans-1,3-Dichloropropene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Ethylbenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Hexachlorobutadiene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
2-Hexanone	ND		ug/kg dry	10.4	10.4	1	05/16/24	05/16/24 14:11	WB
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
4-Isopropyltoluene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
4-Methyl-2-pentanone	ND		ug/kg dry	10.4	10.4	1	05/16/24	05/16/24 14:11	WB
Methylene chloride	37.8	L	ug/kg dry	20.9	20.9	1	05/16/24	05/16/24 14:11	WB
Naphthalene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
n-Propylbenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Styrene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Tetrachloroethene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Toluene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,1,1-Trichloroethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,1,2-Trichloroethane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Trichloroethene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,2,3-Trichloropropane	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-5 11-13.5'

4050829-10 (Soil)

Sampled on: 05/08/24 12:55

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA 8260B (GC/MS) Prepared by 5030-GCMS (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
Vinyl chloride	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
o-Xylene	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
m- & p-Xylenes	ND		ug/kg dry	5.2	2.1	1	05/16/24	05/16/24 14:11	WB
<i>Surrogate: 1,2-Dichloroethane-d4</i>		70-130		104 %	05/16/24		05/16/24 14:11		
<i>Surrogate: Toluene-d8</i>		75-120		94 %	05/16/24		05/16/24 14:11		
<i>Surrogate: 4-Bromofluorobenzene</i>		65-120		98 %	05/16/24		05/16/24 14:11		
Semivolatile Organics by EPA 8270D (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Acenaphthylene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Anthracene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Benzo[a]anthracene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Benzo[b]fluoranthene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Benzo[k]fluoranthene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Benzo[g,h,i]perylene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Benzo[a]pyrene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Chrysene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Dibenz[a,h]anthracene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Fluoranthene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Fluorene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
2-Methylnaphthalene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Naphthalene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Phenanthrene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
Pyrene	ND		ug/kg dry	84	84	1	05/11/24	05/14/24 20:40	EH
<i>Surrogate: 2-Fluorophenol</i>		23-121		89 %	05/11/24		05/14/24 20:40		
<i>Surrogate: Phenol-d5</i>		24-113		91 %	05/11/24		05/14/24 20:40		
<i>Surrogate: Nitrobenzene-d5</i>		23-120		93 %	05/11/24		05/14/24 20:40		
<i>Surrogate: 2,4,6-Tribromophenol</i>		19-122		92 %	05/11/24		05/14/24 20:40		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		96 %	05/11/24		05/14/24 20:40		
<i>Surrogate: Terphenyl-d14</i>		18-137		98 %	05/11/24		05/14/24 20:40		

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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Reported:
05/17/24 10:29

B-5 11-13.5'

4050829-10 (Soil)
Sampled on: 05/08/24 12:55

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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GASOLINE RANGE ORGANICS BY EPA 5030/8015C Prepared by 5030-GC

Gasoline-Range Organics	ND		mg/kg dry	0.10	0.10	1	05/14/24	05/15/24 00:54	MNB
<i>Surrogate: a,a,a-Trifluorotoluene [FID]</i>		85-115		102 %	05/14/24		05/15/24 00:54		

DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)

Diesel-Range Organics (C10-C28)	ND		mg/kg dry	8.4	8.4	1	05/13/24	05/14/24 19:19	TS
<i>Surrogate: o-Terphenyl</i>		70-130		105 %	05/13/24		05/14/24 19:19		

PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids

Percent Solids	96		%			1	05/14/24	05/15/24 08:35	CZ
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POLYCHLORINATED BIPHENYLS BY EPA 8082A (GC/ECD) Prepared by 3540-GC(Soxhlet) CIPestPCB

Aroclor-1016	ND		ug/kg dry	41.8	41.8	1	05/10/24	05/13/24 15:28	ARS
Aroclor-1221	ND		ug/kg dry	41.8	41.8	1	05/10/24	05/13/24 15:28	ARS
Aroclor-1232	ND		ug/kg dry	41.8	41.8	1	05/10/24	05/13/24 15:28	ARS
Aroclor-1242	ND		ug/kg dry	41.8	41.8	1	05/10/24	05/13/24 15:28	ARS
Aroclor-1248	ND		ug/kg dry	41.8	41.8	1	05/10/24	05/13/24 15:28	ARS
Aroclor-1254	ND		ug/kg dry	41.8	41.8	1	05/10/24	05/13/24 15:28	ARS
Aroclor-1260	ND		ug/kg dry	41.8	41.8	1	05/10/24	05/13/24 15:28	ARS
Aroclor-1262	ND		ug/kg dry	41.8	41.8	1	05/10/24	05/13/24 15:28	ARS
Aroclor-1268	ND		ug/kg dry	41.8	41.8	1	05/10/24	05/13/24 15:28	ARS
<i>Surrogate: Tetrachloro-m-xylene</i>		40-150		96 %	05/10/24		05/13/24 15:28		
<i>Surrogate: Decachlorobiphenyl</i>		40-150		67 %	05/10/24		05/13/24 15:28		

Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion

Arsenic	3.37		mg/kg dry	0.261	0.261	1	05/15/24	05/16/24 17:52	AWH
Barium	24.5		mg/kg dry	0.261	0.261	1	05/15/24	05/16/24 17:52	AWH
Cadmium	ND		mg/kg dry	0.261	0.261	1	05/15/24	05/16/24 17:52	AWH
Chromium	9.93		mg/kg dry	0.261	0.261	1	05/15/24	05/16/24 17:52	AWH
Lead	3.96		mg/kg dry	0.261	0.261	1	05/15/24	05/16/24 17:52	AWH
Mercury	ND		mg/kg dry	0.0130	0.0130	1	05/15/24	05/16/24 17:52	AWH
Selenium	0.939		mg/kg dry	0.261	0.261	1	05/15/24	05/16/24 17:52	AWH
Silver	ND		mg/kg dry	0.261	0.261	1	05/15/24	05/16/24 17:52	AWH



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Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: DC CAROUSEL

Project Number: 47:17909

Project Manager: Josh Cinnamon

Reported:

05/17/24 10:29

Maryland Spectral Services does not maintain certification for the following analytical parameters:

Maryland Spectral Services

Matrix , Method , Analyte _____



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Analytical Results

Project: DC CAROUSEL

Project Number: 47:17909
Project Manager: Josh Cinnamon

Notes and Definitions

- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- QM-06 Due to non-homogeneity of the QC sample matrix, the MS/MSD or MS/DUP did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS percent recoveries.
- L Analyte is a possible laboratory contaminant
- J Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
- RE Sample reanalyses are done at the laboratory's discretion as a mechanism to improve data quality. Any client requested reanalysis will be identified with a sample qualifier.
- ND Analyte NOT DETECTED at or above the reporting limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- %-Solids Percent Solids is a supportive test and as such does not require accreditation

If this report contains any samples analyzed for gasoline range organics (GRO) by EPA Method 8015C and no trip blank was shipped, stored, and received with the sample(s) as required by Section 3.1 of the EPA Method, the sample analysis contained in this report cannot exclude the possibility that any reportable GRO measurement was due to environmental contamination of the sample during shipping or storage.



Will Brewington, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Company Name: fcs Mid-Atlantic		Project Manager: Josh Cinnamon		Analysis Requested										CHAIN-OF-CUSTODY RECORD		
Project Name: DC Carousel		Project ID: 47-17909		No. of Containers TPH-GRO TPH-DRO VOCs PAHs PCBs PCPA & Metals										Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@mdspectral.com		
Sampler(s): Jacey Schick		P.O. Number:												Matrix Codes: NW (nonpotable water) PW (potable water)		
Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	TPH-GRO	TPH-DRO	VOCs	PAHs	PCBs	PCPA & Metals	Preservative: 1+ 1 HCL, H ₂ SO ₄ , Methanol, Na ₂ S ₂ O ₃ , NaHCO ₃	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID	
B-1 2.5-5'	5/8	1200	X			3	X	X	X	X	X	X			4050629-01 A	
B-1 10.5-13'	5/8	1205	X			3	X	X	X	X	X	X			-02	
B-2 2.5-5'	5/8	1210	X			3	X	X	X	X	X	X			-03	
B-2 11.5-14'	5/8	1215	X			3	X	X	X	X	X	X			-04	
B-3 2.5-5'	5/8	1236	X			3	X	X	X	X	X	X			-05	
B-3 11.5-14'	5/8	1235	X			3	X	X	X	X	X	X			-06	
B-4 2.5-5'	5/8	1240	X			3	X	X	X	X	X	X			-07	
B-4 11.5-14'	5/8	1245	X			3	X	X	X	X	X	X			-08	
B-5 2.5-5'	5/8	1250	X			3	X	X	X	X	X	X			-09	
B-5 11-13.5'	5/8	1255	X			3	X	X	X	X	X	X			-10	
Relinquished by: (Signature) <i>J. Schick</i>		Date/Time 1336		Received by: (Signature)		Relinquished by: (Signature)		Date/Time		Received by: (Signature)						
(Printed) J. Schick		5/8		(Printed)		(Printed)		(Printed)		(Printed)						
Relinquished by: (Signature)		Date/Time		Received by Lab (Signature)		Turn Around Time:		Lab Use:								
(Printed)		14:30		(Printed) Lori Foster		<input checked="" type="checkbox"/> Normal (7 day) <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day <input type="checkbox"/> Rush (2 day) <input type="checkbox"/> Next Day <input type="checkbox"/> Other: _____ <input type="checkbox"/> Specific Due Date: _____		Temp: _____ °C <input checked="" type="checkbox"/> Received on Ice <input type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for _____ days								
Delivery Method: <input checked="" type="checkbox"/> Courier <input type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Other: _____		Special Instructions/QC Requirements & Comments:														