

## REPORT May 2024 Ambient Air Monitoring Report Rain Carbon Canada Inc.

Submitted by:

#### Rain Carbon Canada Inc.

725 Strathearne Avenue North Hamilton, Ontario L8H 5L3

June 2024

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#### 1.0 INTRODUCTION

Rain Carbon Canada Inc. (Rain Carbon) is required to prepare monthly written summary reports of benzo(a)pyrene [B(a)P] and benzene ambient monitoring measurements for the coal tar and petroleum material processing plant located at 725 Strathearne Avenue N., Hamilton, Ontario (the Facility). This is the sixty-nineth monthly report submitted as part of the Rain Carbon ambient monitoring program and summarizes the measurements taken in May 2024.

The ambient air monitoring measurements for May 2024 follow the November 12, 2019, Monitoring Plan for B(a)P and Benzene (the Plan) approved by the Ontario Ministry of the Environment, Conservation and Parks (MECP) on December 20, 2019. A copy of the Plan has been provided in Appendix A.

Rain Carbon operates the fence line monitors for benzene and B(a)P at the East, North, South, New West, and Old West environmental monitoring stations. Rain Carbon conducted monitoring for benzene and B(a)P monitoring off site at the HAMN station 29164 from April 2022 through September 2022 and resumed monitoring on December 7, 2022.

This report includes the following information for measurements taken in May 2024:

- Identification of each location at which a measurement was taken.
- For each location, the concentration of each measurement taken.
- The date and time each measurement was taken.

#### 2.0 AMBIENT MONITORING STATIONS

The monitoring program consists of setting up two types of sampling systems at five locations at the Facility. The two sampling systems included the polyurethane foam (PUF) polyaromatic hydrocarbon (PAH) sampling system for B(a)P and the SUMMA volatile organic carbon (VOC) canister sampling system for benzene. Samples were collected over a 24-hour period. The monitoring stations are listed below, and their locations are shown in Figure 1.

Station Location	Height Above Grade (m)
North - Tank 91	4.1
East - South of Tank-36	3.4
South - Berm	3.2
New West – West Fence line at Railcar Track 2 Spot 10.	4.0
Old West - Tank-77 Platform	13.0
Hamilton Area Monitoring Network (HAMN) Station 29164	4.0

Table 1: Rain Carbon Ambient Air Quality Monitoring Stations

The South berm monitor is placed just over two metres above grade by the berm located on the south side of the Facility as shown in Figure 2. The Old West monitor at Tank 77 is placed on the upper platform located on the west side of the Facility as shown in Figure 3. The platform is approximately 13 metres above grade. As shown in Figure 4, the North monitor is located at the north fence line, north of Tank 91, and placed 4.1 metres above grade and at least 2 metres away from any structure. The East monitor is at the east fence line, south of Tank 36, with an inlet height of 3.4 metres above grade. The New West monitor is located at the west fence line on a new dedicated stand-alone platform at approximately 4 metres above grade.

Air quality data acquisition and instrument performance were evaluated by Rotek Environmental Inc. personnel, who are familiar with the MECP guidelines (Operations Manual for Air Quality Monitoring in Ontario, April 2018) for ambient air monitoring and collection of monitoring data. The laboratory analysis was conducted by Bureau Veritas Laboratories, which is ISO17025 compliant and accredited. The following supporting documents are provided:

- Laboratory Analysis in Appendix B;
- Chain of custody forms in Appendix C;
- Laboratory Certificates of Analysis in Appendix D; and

■ Field notes in Appendix E.



Figure 1: Monitor and Source Locations



Figure 2: Monitor Location on the South Side of the Facility



Figure 3: Monitor Locations on the West Side of the Facility



Figure 4: Monitor Locations on the North Side and East Side of the Facility

#### 3.0 SUMMARY OF MONITORING EQUIPMENT CONDITIONS

The laboratory Certificate of Analysis for each monitoring event includes information on the volume of the sample collected for the PUF (B(a)P) monitoring system, and the residual vacuum pressures for the SUMMA canisters (benzene) monitoring equipment. For the PUF system, the MECP has flow requirements of 8 CFM +/- 10% which is equivalent to total volumes between 293.6 m<sup>3</sup> and 358.8 m<sup>3</sup> over 24 hours.

For the May 2024 B(a)P monitoring results, all the recorded PUF volumes were inside the MECP specified range of between 293.6 m<sup>3</sup> and 358.8 m<sup>3</sup> over 24 hours except at the north monitor on the **May 6, 2024**, **MECP monitoring event** where the total volume recorded was **293.1 m<sup>3</sup>** and under the minimum volume requirement of **293.6 m<sup>3</sup>**.

All the benzene SUMMA canister pressures on receipt at the laboratory for analysis had acceptable pressures of receipt of between -1.6 inches Hg and -13.4 inches Hg except at the new west monitor on the **May 6, 2024, MECP monitoring event** where the new west monitor VOC sampler timer failed, and no sample was obtained. The summa canister pressures on receipt and PUF filter total volumes are presented below in Tables 2 and 3.

Monitoring	Benzene SU	IMMA Canister H				
Event Date	East	North	Old West	South	New West	HAMN STN 29164
May 6	-11.4*	-7.13	-7.33	-7.13	Invalid Sample**	-9.16
May 18	-12.6*	-8.3	-7.3	-7.9	-5.09	-10.8*
May 30	-12.4*	-6.5	-7.3	-7.9	-5.3	-8.1

Table 2: Summa Canister Pressures on Receipt ("Hg)

\*Sample is acceptable as within the MECP acceptable pressure of receipt of between -1.6 to -13.4 inches Hg but outside the MECP recommended pressure on receipt range of - 5 to -10 inches Hg.

\*\* Sample is invalid as the Summa canister pressure on receipt was outside the MECP acceptable range of - 1.6 to -13.4 inches Hg.

**Table 3: PUF Filter Total Volumes** 

Monitoring Event Date	East	North	Old West	South	New West	HAMN STN 29164
May 6	316.3	293.1*	334.7	308.8	306.5	325.9
May 18	307.4	294.4	332.9	308.2	308.7	325.9
May 30	325.2	302.4	334.8	301.1	311.6	325.9

\*Total PUF volume recorded was 293.1 m<sup>3</sup> under the minimum volume requirement of 293.6 m<sup>3</sup>.

#### 4.0 SUMMARY OF BENZENE MEASUREMENTS

Three sets of benzene measurements were taken in May 2024. The measurements range from 0.854  $\mu$ g/m<sup>3</sup> to **111 \mug/m<sup>3</sup>**, with the highest value being detected at the **south monitor** during the May 18, 2024, MECP monitoring event.

The May 18, 2024, MECP monitoring event south monitor measurement of  $111 \,\mu\text{g/m}^3$  benzene was above the 100  $\mu\text{g/m}^3$  benzene Upper Risk Threshold (URT).

All the remaining benzene concentrations measured during the three May 2024 MECP monitoring events were below the 24-hour Upper Risk Threshold (URT) of  $100 \ \mu g/m^3$  benzene.

On the **May 6, 2024, MECP monitoring event** the new west monitor VOC sampler timer internal valve failed and no sample was obtained.

The new west monitor VOC sampler timer was then replaced prior to the **Saturday May 18, 2024, MECP monitoring event.** 

Monitoring		Measured Concentration [µg/m³]					
Monitoring Event Date	East	North	Old West	South	New West	HAMN STN 29164	
May 6	30.0*	2.07	19.9	69.5	Invalid Sample**	0.854	
May 18	5.04*	1.37	35.8	111	3.76	0.422	
May 30	6.26*	2.04	12.1	77.7	2.65	0.488	

#### Table 4: Summary of May 2024 Benzene Measurements

\*Sample is acceptable as within the MECP acceptable pressure of receipt of between -1.6 to - 13.4 inches Hg but outside the MECP recommended pressure on receipt range of -5 to -10 inches Hg.

\*\* Sample is invalid as the Summa canister pressure on receipt was outside the MECP acceptable range of - 1.6 to -13.4 inches Hg.

### 5.0 SUMMARY OF B(a)P MEASUREMENTS.

Monitoring Event Date		Measured Concentration [µg/m³]				
	East	North	Old West	South	New West	HAMN STN 29164
May 6	0.00171	0.00034*	0.00066	0.00091	0.00261	0.00049
May 18	< 0.0017	< 0.0012	< 0.0011	< 0.0011	< 0.00032	< 0.00098
May 30	0.00191	0.00046	0.00615	0.00179	0.00257	0.00025

#### Table 5: Summary of May 2024 B(a)P Measurements.

\*Total PUF volume recorded was 293.1 m<sup>3</sup> under the minimum volume requirement of 293.6 m<sup>3</sup>.

Three sets of B(a)P measurements were taken in May 2024. The B(a)P measurements ranged from 0.00025  $\mu$ g/m<sup>3</sup> to 0.00615  $\mu$ g/m<sup>3</sup> B(a)P, with the highest value being detected at the **old west monitor** during the **May 30, 2024, monitoring event**.

The MECP included a Measured Level Threshold in the B(a)P SSS as a trigger to evaluate progress on the B(a)P Action Plan. This level, set by the MECP, is not directly related to the ESDM Report results.

The B(a)P concentration of **0.00615 \mug/m<sup>3</sup>** measured at the old west monitor during the May 30, 2024, monitoring event was above the 0.00430  $\mu$ g/m<sup>3</sup> Measured Level Threshold (MLT) which triggered the preparation of a May 2024 AML report, as set out in the B(a)P SSS. It was also above the 24-hr Upper Risk Threshold (URT) of 0.00500  $\mu$ g/m<sup>3</sup> B(a)P.

All the other B(a)P concentrations measured during the three May 2024 monitoring events were below the 0.00430  $\mu$ g/m<sup>3</sup> Measured Level Threshold (MLT) and below the 24-hr Upper Risk Threshold (URT) of 0.00500  $\mu$ g/m<sup>3</sup> B(a)P.

All the B(a)P measurements are summarized in Table 5 above and copies of the laboratory analysis reports are provided in Appendix B.

#### **6.0 CONCLUSIONS**

All the B(a)P concentrations measured during the three May 2024 monitoring events were below the 0.0043  $\mu$ g/m<sup>3</sup> Measured Level Threshold (MLT) and below the 24-hr Upper Risk Threshold (URT) of 0.0050  $\mu$ g/m<sup>3</sup> B(a)P, except for on the **May 30, 2024, MECP monitoring event** where the old west monitor measured 0.00615  $\mu$ g/m<sup>3</sup> B(a)P which triggered the preparation of a May 2024 AML report, as set out in the B(a)P SSS. It was also above the 24-hr Upper Risk Threshold (URT) of 0.00500  $\mu$ g/m<sup>3</sup> B(a)P.

The May 18, 2024, MECP monitoring event south monitor benzene measurement of  $111 \mu g/m^3$  benzene was above the 100  $\mu g/m^3$  benzene Upper Risk Threshold (URT). All the remaining benzene concentrations measured during the three May 2024 MECP monitoring events were below the 24-hour Upper Risk Threshold (URT) of 100  $\mu g/m^3$  benzene.

For the May 2024 B(a)P monitoring results, all the recorded PUF volumes were inside the MECP specified range of between 293.6 m<sup>3</sup> and 358.8 m<sup>3</sup> over 24 hours except at the north monitor on the **May 6, 2024**, **MECP monitoring event** where the total volume recorded was 293.1 m<sup>3</sup> and under the minimum volume requirement of **293.6 m<sup>3</sup>**.

All the benzene SUMMA canister pressures on receipt at the laboratory for analysis in May 2024 had acceptable pressures of receipt of between -1.6 inches Hg and -13.4 inches Hg except for the new west monitor VOC sampler timer on the **May 6, 2024, MECP monitoring event** where the new west VOC sampler timer internal valve failed closed, and no sample was obtained.

# Signature Page

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APPENDIX A

# Monitoring Plan



## REPORT Monitoring Plan for Benzo(a)pyrene and Benzene Rain Carbon Canada Inc.

Submitted to:

**Distribution List** 

Submitted by:

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September 2020

# **Distribution List**

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Figure 2 – Environmental Monitor Locations

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APPENDIX A Site Photos

## **1.0 INTRODUCTION**

Rain Carbon Canada Inc. (Rain Carbon) prepared an amendment to the monitoring plan (the Plan) which was approved by the Ontario Ministry of Environment, Conservation and Parks (MECP) in November 2019 as part of the conditions of the Site-Specific Standard (SSS) approvals for B(a)P (no. 201-17-rv0) and benzene (no. 202-17-rv0) issued to the Facility on November 21, 2017.

This updated Plan has been prepared to incorporate the fact that the north, east and west monitoring stations have now all been relocated as described in the Plan issued in November 2019 and are now all operational.

(The Plan describes the current air monitoring program performed to monitor concentrations of B(a)P and benzene emissions from the Facility).

## 1.1 Description of the Facility

Rain Carbon operates a coal tar and petroleum material processing plant located at 725 Strathearne Avenue N., Hamilton, Ontario. The Facility employs 85 people. The size of the plant is about 14 acres and it is in an area zoned for industrial use. The location of the Facility is presented in Figure 1 – Site Location Plan.

## 1.2 Description of the Process

Rain Carbon processes coal tar and petroleum-based materials into products. The primary production line is to manufacture coal tar pitch and coal tar distillates (CTDs) by processing coal tar. The process is comprised of the following processes and equipment:

- Coal Tar Handling;
- Distillation Process;
- Product Storage Handling;
- Natural Gas Combustion Equipment;
- Fume Gathering and Incineration (FGI) System;
- Fume Scrubber System (FSS); and
- Wastewater Collection and Treatment.

## 1.3 Operating Schedule

The Facility operates continuously 24 hours a day, seven days a week and 52 weeks per year.

## 2.0 AIR QUALITY MONITORING PROGRAM

## 2.1 Sampling Systems and Methodology

As B(a)P and benzene require different sampling methods, two types of sampling systems will be installed at each monitoring location (described below in Section 2.2). A PUF PAH sampling system will be used to detect condensable and non-condensable fractions of B(a)P while a VOC canister system will be used to detect benzene.

Samples will be taken over 24-hour period every 12 days. This schedule will be matched to that of the Hamilton Air Monitoring Network (HAMN) to enable comparisons with background B(a)P and benzene levels.

Monitoring will be carried out in accordance with the standard procedures summarized in Table 2.1.

Table 2.1: Standard Operation Procedures for Monitoring

Pollutant	Reference Documents	Method
Benzene	USEPA Report EPA/625/R-96/010/b, USEPA Method TO-15. ASTM Method D5466-01 Standard Test Method for the Determination of VOCs (Canister Sampling Method) Environment Canada SOP for Passive Canister Sampling – Passive FCSOP05.	Determination of VOCs in Air Collected in Specially Prepared Canister.
B(a)P	SEPA Report EPA/625/R-96/010/b, USEPA Method TO-13A. ASTM Method D6209-98 (2004), Vol. 11.07 A Guide to Air Filter (TSP and PM¬10) Sampling and Submission, Ministry of the Environment, Conservation and Parks, May 2003.	Determination of PAHs in Ambient Air Using the hi-vol Method with Teflon-coated Glass Fiber Filter and Sorbent Cartridge; Quantitative GC/MS Detection.

Rain Carbon worked with Rotek Environmental Inc. (Rotek) and others to install the monitoring equipment. Samples are collected by Rain Carbon staff and sent to an accredited laboratory for analysis. Rain Carbon will prepare the monitoring reports as required by the orders.

### 2.1.1 Calibration

Calibrations will be carried out in accordance with MECP standard operating procedures stating that operators must perform an external performance check and calibration on continuous and non-continuous air monitoring and sampling equipment with a certified calibration unit. This requires that the calibration materials/gases and measurement devices, such as flow meters and pressure gauges, must be certified for accuracy against a reference or transfer standard traceable to a primary reference standard of the United States National Institute of Standards and Technology (NIST) or another equivalent international standards institute. This is to ensure consistency across the province and reproducibility. Calibration devices must also undergo an annual certification assessment.

The monitoring equipment is calibrated by Rotek.

### 2.2 Monitor Locations

The monitoring locations were selected based on input from the MECP. Based on experience gained through implementing the monitoring program, Rain Carbon relocated the original North, East, and West Monitoring Stations but not the South Monitoring Station. The descriptions of the monitoring station locations are summarized in Table 2.2 below. The monitoring station locations are shown in Figure 2.

Monitoring Station	Location			
North Monitor	This location is at the north fence line, north of Tank 91, with the inlet at an elevation of between 3 m and 15 m above grade and positioned at a distance of at least 2 m away from any structure.			
East Monitor				
Old West Monitor	This old west location, approximately 8 metres east of the property boundary, is on a platform above Tank 77 (approximately 13 above grade) is currently located relatively close to and above the railcar loading stations.			
New West Monitor	This new west location is closer to ground level to be consistent with the other monitor locations, between the west fence line and the rail tracks, and north of the railcar track 2 spot 10 area with the inlet at an elevation of between 3 m and 15 m above grade and positioned far from any structure.			
South Monitor	This location is at the south fence line, south of Tank 3, with the inlet at an elevation of between 3 m and 15 m above grade and positioned at a distance of at least 2 m away from any structure.			

Table 2.2:	Monitoring	Station	Locations.
------------	------------	---------	------------

Detailed descriptions of the emission sources at the Facility are summarized in the Monitoring Plan approved by the MECP in April 2018.

### 2.2.1 Siting Criteria

A comparison of each monitoring location against the siting criteria set out in the MECP Operations Manual is provided in Table 2.3 below.

	<b>0</b>			Monitor Location		
Contaminant	Criteria	North	East	Old West	New West	South
B(a)P and Benzene	Inlet height 3 to 15 m above grade	Inlet 3 to 15 m above grade	Inlet 3 to 15 m above grade	Inlet 3 to 15 m above grade	Inlet 3 to 15 m above grade	Inlet 3 to 15 m above grade
B(a)P and Benzene	Inlet at least 1 m (vertical) and 2 m (horizontal) away from structure	Yes	Yes	Yes	Yes	Yes
B(a)P and Benzene	No nearby furnace or incineration flues	None	None	None	None	None
B(a)P Avoids nearby non-process PAH sources (asphalt rooftops, rooftop tarring and roadway/parking lot paving activities) and smoking areas		Yes	Yes	Yes	Yes	Yes
Benzene	Meets minimum separation distance from roadway (10 m)	Yes	Yes	Yes	Yes	Yes

Table 2.3: Monitor Locations Comparison to MECP Siting Criteria.

## 2.3 Meteorological Data and Background Concentrations

The HAMN is used to document meteorological conditions during monitoring events. The previous closest meteorological station to the Facility was station STN29165; however, this station has not been operational since November 1, 2017. Meteorological conditions will be documented using the following nearby HAMN stations: STN29102, STN29180, and STN29565. When conditions are highly variable, the following stations may also be used to document meteorological conditions: STN29167, STN29171, and STN29567.

The background benzene and B(a)P concentrations in the vicinity of the Facility will be reviewed to evaluate the potential impact of nearby sources of emission on the Facility. Rain Carbon will use data from nearby HAMN monitoring stations, prepared by HAMN on a quarterly basis. The HAMN stations to be used

to inform background concentrations include the following HAMN stations: STN29567, STN29547, STN29102 and STN29180. Information on these stations is presented in Table 2.4.

HAMN Station	29567	29180	29547	29102	29167	29171	29565
Wind Speed and Direction	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	~	~
B(a)P Concentration	$\checkmark$	$\checkmark$	$\checkmark$	_	_	_	_
Benzene Concentration	$\checkmark$	✓	_	✓	_	_	—
Approximate Distance from Facility [km]	3.9	2.4	1.0	1.5	1.7	2.3	1.3
Orientation from Facility	W	WSW	Ν	NNE	NNW	WNW	S

Table 2.4: Meteorological Station Information

The background data assessment will be used to provide context for the Rain Carbon monitoring results should high values be measured. Please note that background values will not be subtracted from the Rain Carbon monitoring results.

### 2.4 Laboratory Analysis

Rain Carbon will continue to work with the same accredited laboratories that have been retained to analyse samples obtained from the HAMN. The proposed method detection limits and analytical methods are summarized below in Table 2-5.

Contaminant	Methodology	Method Detection Limit
B(a)P	Gas chromatography mass spectrometry	0.0001 µg/m³ (0.1 ng/m³)
Benzene	Mass spectrometry or other detector(s) such as flame ionization detector (FID) or electron capture detector (ECD)	0.16 µg/m³

Table 2.5: Analytical Methodology

### 2.5 Review of Monitoring Locations

As fees for monitoring equipment rental and/or purchase, sampling materials and laboratory analysis represent a significant, long-term capital expense, Rain Carbon will continue to review the effectiveness and value of each monitoring location. In consultation with the District Manager and the Environmental Monitoring Team, Rain Carbon will propose if any of the monitors can be removed.

## 3.0 **REPORTING**

Summary reports of B(a)P and benzene monitoring results will be submitted to the District Manager and the Environmental Monitoring Team as set out in the SSS approval documents.

## 3.1 Measured Level Threshold

Within 30 days of a B(a)P concentration measuring above the Measured Level threshold in the SSS approval, Rain Carbon will submit a report to the District Manager and SDB Director. The report will contain information such as an analysis of the cause of the measurement above the Measured Level threshold, the Facility production rate at the time and other items as required by Condition 2 of the B(a)P SSS approval.

## 4.0 CLOSURE

This monitoring plan describes the amended air monitoring program that will be performed in accordance with the Rain Carbon SSS approvals for B(a)P and benzene.

# Signature Page

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Rain Carbon Canada Inc.

September 2020

# **Figures**

### Figure 1: Site Plan



#### Figure 2: Environmental Monitor Locations



**APPENDIX A** 

## Site Photos

Figure A1: Site-Wide Aerial View 1

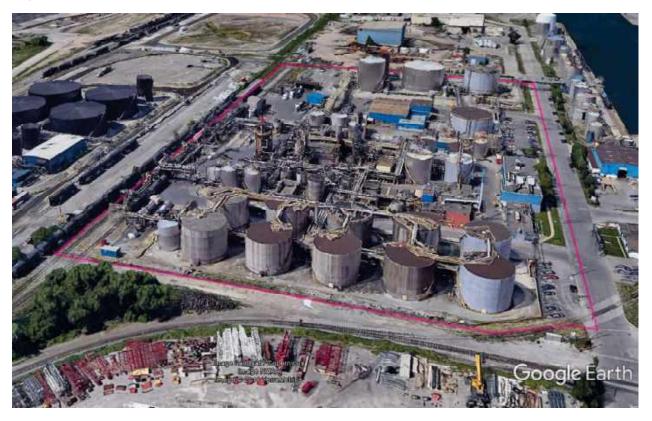


Figure A2: Site-Wide Aerial View 2





Figure A4: Aerial View 2 – North Monitoring Station.



North monitor



## Figure A3: Aerial View 1 – Existing South Monitoring Station

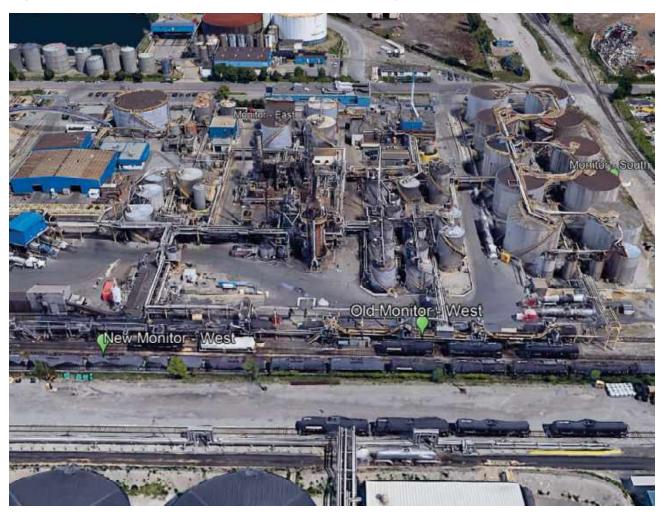


Figure A3: Aerial View 3 – New and Old West Monitoring Stations



New West Monitor



Figure A4: Aerial View 4 – East Monitoring Station

June 2024

APPENDIX B

Laboratory Analysis

### Rain Carbon Canada Inc. - Monthly BaP Sampling Report

Reporting Period Sampling Methods Sampling Times : May 2024

: CARB429(ARBM1,M2) mod

: 24 hour duration starting at 00:00 EST on the Sample Date

Parameter
Units
Analytical RDL
Annual Site Specific Standard

BaP
ng/m³
0.315
0.8

Sample Date
6-May-24
18-May-24
30-May-24

Location								
East	North	Old West	South	New West	STN29164			
1.71	0.34	0.66	0.91	2.61	0.49			
< 1.7	< 1.2	< 1.1	< 1.1	< 0.32	< 0.98			
1.91	0.46	6.15	1.79	2.57	0.25			

Monthly Ave	1.77	0.67	2.64	1.27	1.83	0.735*
Monthly Max	1.91	< 1.2	6.15	1.79	2.61	< 0.98*
Monthly Min	< 1.7	0.34	0.66	0.91	< 0.32	0.49*
No. of Samples >Standard	3	1	2	3	2	1*
No. of Valid Samples	3	3	3	3	3	3*
% Valid Data	100	100	100	100	100	100*

\*These results alone follow Rotek reporting protocol

Comments:

### Rain Carbon Canada Inc. - VOC Sampling Report

Reporting Period Sampling Methods Sampling Times : May 2024

: GC/MS (TO15)

: 24 hour duration starting at 00:00 EST on the Sample Date

Benzene

µg/m³

Parameter					
Units					
Analytical RDL					
Annual Site Specific Standard					

Sample Date
6-May-24
18-May-24
30-May-24

	0.319								
	12.7								
ĺ	Location								
ĺ	East	North	Old West	South	New West	STN29164			
	30.0	2.07	19.9	69.5	Invalid Sample	0.854			
	5.04	1.37	35.8	111	3.76	0.422			

77.7

2.65

0.488

12.1

	-			_		
Monthly Ave	13.8	1.83	22.6	86.1	3.20	0.59*
Monthly Max	30.0	2.07	35.8	111	3.76	0.854*
Monthly Min	5.04	1.37	12.1	69.5	2.65	0.422*
No. of Samples >Standard	1	0	2	3	0	0*
No. of Valid Samples	3	3	3	3	2	3*
% Valid Data	100	100	100	100	100	100*

2.04

6.26

\*These results alone follow Rotek reporting protocol

Comments:

## Rain Carbon Canada Inc. - Monthly BaP Sampling Report

Reporting Period Sampling Method Sampling Times : May 2024

: CARB429(ARBM1,M2) mod

: 24 hour duration starting at 00:00 EST on the Sample Date

Parameter	BaP
Units	ng/m³
Analytical RDL	0.315
Annual Site Specific Standard	0.8

Sample Date			Loca	ation		
Sample Date	East	North	Old West	South	New West	STN29164
06-May-24		aa aa				0.49
18 <b>-M</b> ay-24		100 M H				0.15
30 <b>-M</b> ay-24						0.15
Monthly Ave	#DIV/0!	#D <b>I</b> V/0!	#D <b>I</b> V/0!	#D <b>I</b> V/0!	#D <b>I</b> V/0!	0.26
Monthly Max	0.00	0.00	0.00	0.00	0.00	0.49
Monthly Min	0.00	0.00	0.00	0.00	0.00	0.15
No. of Samples >Standard	0	0	0	0	0	0
No. of Valid Samples	0	0	0	0	0	3
% Valid Data	100	100	100	100	100	100

Note: All non detectable results reported as  $\ensuremath{^{/}_{\!\!\!\!2}}$  the Reportable Detection Limit (RDL).

Comments

## Rain Carbon Canada Inc. - VOC Sampling Report

Reporting Period Sampling Methods Sampling Times : May 2024 : GC/MS (TO15)

: 24 hour duration starting at 00:00 EST on the Sample Date

Parameter	Benzene
Units	ug/m <sup>3</sup>
Analytical RDL	0.319
Site Specific Standard	12.7

Sample Date			Loca	ation		
Sample Date	East	North	Old West	South	New West	STN29164
06-May-24						0.85
18 <b>-M</b> ay-24		100 M H				0.42
30 <b>-M</b> ay-24						0.49
Monthly Ave	#DIV/0!	#D <b>I</b> V/0!	#D <b>I</b> V/0!	#D <b>I</b> V/0!	#D <b>I</b> V/0!	0.59
Monthly Max	0.00	0.00	0.00	0.00	0.00	0.85
Monthly Min	0.00	0.00	0.00	0.00	0.00	0.42
No. of Samples >Standard	0	0	0	0	0	0
No. of Valid Samples	0	0	0	0	0	3
% Valid Data	100	100	100	100	100	100

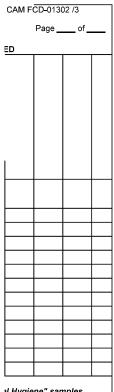
Note: All non detectable results reported as  $\ensuremath{^{/}_{\!\!\!\!2}}$  the Reportable Detection Limit (RDL).

Comments

APPENDIX C

# Chain of Custody Forms

		6740 Campobello Rd Mississauga Ontario ,L5 <u>www.bvlabs.com</u>	5N 2L8	Phone:	1-800-668- (905) 817-5 (905) 817-5	5700		RM - Al	R				ANALY	SIS RE	QUEST
	Comp	any Name: Rain Carbon	Canada Inc				PAHs on PUF as per ERP 7013								1
CLIENT	Comp	any Name. Rain Carbon	Canada Inc.				4								
INFORMATION	Projec	t Manager: Robin Hart													
		e-mail: robin hart@r	aincarbon.com				1								
		Address: 725Strathear	ne Avenue				1								
SECTION		Hamilton, ON	1				1								1
		Phone: 1-647-281-80	)94	Fax:											
	S	ampled by: Robin Hart			-										
Field Sample ID	)		Total Volume Sampled	Flow Rate	Collection Date	Sample Collection Time	x								
East Monitor PAH Ma	ay 6, 2024 Z	AE-655-01	316.3		8/May/24	13:15	x								[
North Monitor PAH M			293.1		8/May/24		x								
Old West Monitor PA	H May 6, 20	24 ZAE-657-01	334.7		9/May/24	13:20	x								
South Monitor PAH M			308.8		8/May/24										
New West Monitor PA			306.5		9/May/24	12:54			•						
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* need approval from		BV Quote #:			Regulation										
Veritas		BV Contact:	Cristina Bacc						-						
Client Signature: Ro			Received by:					_							
	nvironmenta 10-May-24		Affiliation: Date/Time:					-							
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conditions	o in writing, Wor	k submitted on this Unall of Cu	siouy is subject to	Dureau verita	is Laboratories	siandard Terms	and conditions. Signing of this Chain of C	ustoay dot	ument IS	acknowled	iginent an	u accepta	ance of ou	erms ave	anadie at



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http://www.bvlabs.com/terms-and-

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E-mail:	jennifer dav	ies@rotek	inc.com	BR	E	N.	ĝ	NNO.	GAI	OF.	Alara	2	10	1	AL			N NC
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	Address Address Project Address E-mail: PUF #1 PUF #1 PUF #1 Address ROJECT INFORM Name: Rain Ca PO # 32669 - 32669 - 32669 - 32669 - 32669 	Address 15 Keefer C ON L8E 4V Project Manager: Address 15 Keefer C ON L8E 4V E-mail: jennifer dav Ph: 906 573 55 8V PUF ID # PUF #1 YKN637.01 # PUF #1 YKN637.01 # PUF #1 YKN637.01 # ROJECT INFORMATION roject # Name: Rain Carbor Canada # PO # 32659 reau Vertas Consc Cristina Bac ak Order/Line Item	Address 15 Keefer Court Hami Company Name: Rotek Env Project Manager: Paul Dasz Address 15 Keefer Court Hami ON L8E 4V4 E-mail: jennifer davies@rotek Ph: 906 573 5533 BV PUF ID Flow Regulator 8 V PUF ID Flow PUF #1 YKN937-01 PUF #1 YKN937-01 Roject # Roman	asisasuga Ontario LSN 2L8 Phone: (905) 817- Par: (905) 817- Par: (905) 817- Par: (905) 817- Pari:	asiasauga Ontario J.5N 23.8 Phone: (905) 817-5700 Pax: (905) 817-5700 Pax: (905) 817-5777 REPORT INFORMATION Intai Inc. Company Name: Rotek Environmental Project Manager: Paul Daszko Address 15 Keefer Court Hamilton ON L8E 4V4 E-mail: jennifer davies@rotekinc.com Ph: 906 573 9533 BV PUF ID Rogulator Ph: 9	asisasuga Ontario LSN 2L8 Phone: (905) 817-5700 Par: (905) 817-5700 Par: (905) 817-5707 Par: (905) 817-570 Par: (905) 81-570	asisaauga Ontario LSN 2L8 Phone: (905) 817-5700 Pax: (903) 817-5770 Pax: (903) 817-5777   REPORT INFORMATION Address 15 Keefer Court Hamilton ON L8E 4V4 E-mail: jennifer davies@rotekinc.com Ph: 906 573 9633 BV PUF ID BV PUF I	asiasauga Ontario LSN 23.8 Phone: (905) 817-5700 Pia: (905) 817-5770 REPORT INFORMATION Initial Inc. Company Name: Rotek Environmental Project Manager: Paul Daszko Address 15 Keefer Court Hamilton ON L8E 4V4 E-mail: jennifer davies@rotekinc.com Ph: 906 573 5633 BV PUF ID Rogulator Ph: 906 573 5633 Pias Pias PUF #1 YKN937-01 07-May PUF #1 PUF	asissauga Ontario LSN 2LB Phone: (905) 817-5700 Par. (905) 817-5700 Par. (905) 817-5707 Par. (905) 817-570 Par. (905) 81-57 Pa	asesauga Ontario LSN 2L8 Phone: (905) 817-5770 Pac: (905) 817-5770 Pac: (905) 817-5777   REPORT INFORMATION Address 15 Keefer Court Hamilton ON LBE 4V4 E-mail: jennifer davies@rotekinc.com Ph: 906 573 9633 BV PUF ID 80 905 573 963 BV PUF ID 80 905 91 905 92 905 92 905 BV PUF ID 80 905 92 905	asiasauga Ontario LSN 23.8 Phone: (905) 817-5700 Fax: (905) 817-5700 Fax: (905) 817-5777  REPORT INFORMATION  Address 15 Keefer Court Hamilton ON L8E 4V4 E-mail: jennifer davies@rotekinc.com Ph: 905 573 5633 BV PUF ID Fbw Report # Date BV PUF ID Fbw Report # Date BV PUF II VKN937-01 - C REPORTING REQUIREMENTS CIN 103 CIN 153 CIN 15	asessauga Ontario LSN 21.8 Phone: (905) 817-5700 Pian: (905) 817-5770 REPORT INFORMATION antal Inc. Company Name: Rotek Environmental Project Manager: Paul Daszko Address 15 Keefer Court Hamilton ON LBE 4V4 E-mail: jennifer davies@rotekinc.com Ph: 906 573 9533 BV PLF ID Flow Regulator Retrieval BV PLF ID Retrieval BV PLF ID Retrieval BV PLF ID Retrieval BV PLF ID RET Retrieval BV PLF ID Retrieval BV PLF ID	Address 15 Keefer Court Hamilton ON LBE 4V4 E-mail: jennifer davies@cotekinc.com Ph: S06 973 9533 ON LBE 4V4 E-mail: jennifer davies@cotekinc.com Ph: S06 973 9533 Date Date Date PUF #1 YKN937.01 - COTECT INFORMATION REPORTING REQUIREMENTS COURT OF Control of the control of t	Annaline Company Name: Rotek Environmental (10) (11) (10) (11) (10) (11) (10) (11) (10) (11) (10) (11) (10) (11) (10) (11) (11	Base assure Ontario LSN 2.8     Phone: (005) \$17:57700 Fax: (005) 817:5777     ANALYSIS R       Intal Inc. Company Name:     REPORT INFORMATION Project Manager:     Paul Datable     Intel Revised Biology Biolog	Basasauga Ontario LSN 2.8       Prone: (00) 1917-5770       ANALYSIS REQUES         We brains com       REPORT INFORMATION       Intel Date       Intel Date       Intel Date         Project Manager:       Paul Daszko       Intel Date       Intel Date       Intel Date       Intel Date         Address 15 Keefer Court Hamilian       Intel Date       Intel Date	Base apparence         Phone: (2005) £17-5777         ANALYSIS REQUESTED           Project Manager:         Paul Daszko         1	Basasuga Charlo LSN 2.8         Phome: (2003) E17-57707         ANALYSIS REQUESTED           Project Manager:         Paul Daszio         1 <td< td=""></td<>

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15 Keefer Court Hamilton, Ontario L8E 4V4 Phone 905 573 9533 Fax 905 578 5167

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## PAH Sample Submission Sheet

Samp	ple Date	06-M	ay-24			Purchase Ord	er Number	32	569
Pro	ject ID	Rain Carbon	Canada Inc	1		Results	s to:	jennifer davies	@rotekinc.com
Sample	er Model	TE-1	000	1		Result	to:	dasako@n	stekine opm
Site C	Operator	York Zhang	Robin Hart	1		Result	to:	robin hart@ra	incarbon.com
				5		Result	a to:	york.zhang@r	aincarbon.com
Station No.	Sample Date	PUF	Maxxam	install Date	MAGN On	Removal Date	MAGN Off	Total Volume	Submission
		Cartridge #	Filter ID #	Install Time	inH2O	Removal Time	inH2O	m3	Date
STN29164	06 May 2024	PUF#1	YKN636-01	01 May-24	38	17.4Any-24	38	325 P	May 8 2024
	2000	YKN637-01		12:15		12:30			
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Come	ment 1 :								
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	Comp	any Name: Rain Carb	on Canada Inc.				PAHs on PUF as per ERP 7013		1				1
LIENT	Design	Manager: Robin Har					1						
CRUMATION	Fiolec	e-mail: robin.harts		1			-				- 1	1.2	
		Address: 725Strath	All service horses where a service is	A			1 92 1						
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eritas	A Officiality		et: Cristica Bacc	farmer .	Regulation		4						
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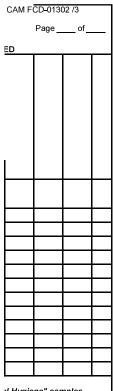
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Rain Carbin	Canada Inc	1		Result	i to:	jennifer davies	Brotekinc.com
	LAND C			Result	s to:	daazko@ro	otekinc.com
York Zhang	7 Robin Hart	1		00193000	1970-1		and a second
				Result	to:	york.zhang@r	aincarbon.com
PUF Cartridge #	Maxxam Filter ID #	Install Date	MAGN On	Removal Date Removal Time	MAGN Off inH20	Total Volume m3	Submission Date
PUF #1	YWD749-01	14-May-24 13:00	36	07-May-24 12:30	36	325.9	May 22 2024
	Ruin Carbon TE- York Zhang PUF Carbridge # PuF #1	Cartridge # Filter ID #	Rain Carbin Canada Inc       TE-1000       York Zhang / Robin Hart       PUF     Maxxam       Example #       Filter ID #       Install Date       PUF #1       YWD749-01	Rain Carbon Canada Inc       TE-1000       York Zhang / Robin Hart       PUF     Maxxam       Install Date     MAGN On       Carbridge #     Filter ID #       Install Time     InH20       PUF #1     WVD749-01       14-May-24     36	Ruin Carbinin Canada Inc       TE-1060       Results         York Zhang / Robin Hart       Results       Results         PUF       Maxxam       Install Date       MAGN On       Removal Date         Cartridge #       Filter ID #       Install Time       InH2O       Removal Time         PUF #1       VWD749-01       14-May-24       36       07-May-24	Rain Carbon Canada Inc         TEI-1000       Results to:         York Zhang / Robin Hart       Results to:         PUF       Maxxam       Install Date       MAGN On       Removal Date       MAGN Off         PUF Garbridge #       Filter ID #       Install Time       IreH20       Removal Time       Int/20         PUF #1       WVD749-01       14-May-24       36       07-May-24       35	Rain Carbon Canada Inc       Results to:       jennifer.daviae         TE-1000       Results to:       dazko@rc         York Zhang / Robin Hart       Results to:       dazko@rc         PUF       Maxxam       Install Date       MAGN On       Removal Date       MAGN Off       Total Volume         PUF #1       Filter ID #       Install Time       inH2O       Removal Time       inH2O       m3         PUF #1       VWD749-01       14-May-24       36       07-May-24       36       325.9

		6740 Campobello Rd Mississauga Ontario ,Lt <u>www.bvlabs.com</u>	5N 2L8	Phone:	1-800-668-( (905) 817-5 (905) 817-5	700	CHAIN OF CUSTODY FOR	M - AIR		T		ANALY	SIS RE	QUEST
	Comp	any Name: Rain Carbon	Canada Inc				PAHs on PUF as per ERP 7013							
CLIENT	Comp	any Name. Namedabon	oundu no.				1							
INFORMATION	Projec	t Manager: Robin Hart												
		e-mail: <u>robin.hart@r</u>												
		Address: 725Strathea					-							
SECTION		Hamilton, Of	N											
		Phone: 1-647-281-8	094	Fax:										
	S	ampled by: Robin Hart			-									
Field Sample ID			l otal Volume Sampled	Flow Rate	Collection Date	Sample Collection Time	x							
East Monitor PAH May 3	0, 2024	ZAF-216-01	325.2		31-May-24	9:47	x							
North Monitor PAH May	30, 2024	ZAF-217-01	302.4		31-May-24	9:58	x							
Old West Monitor PAH M	/lay 30, 2	2024 ZAF-218-01	334.8		31-May-24	10:42	x							
South Monitor PAH May	30, 2024	4 ZAF-219-01	301.1		31-May-24	10:15	x							
New West Monitor PAH			311.6		31-May-24	10:29	x							
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TAT Requirement		PROJECT INFORMATI	ÖN		REPORTIN	G REQUIRE	MENTS		Notes	e note if	these	samnle	s are "l	ndustria
STD 10 Business day	1	Project #:			Summary F	Report only	[2]			nitting dı				
Rush 5 Business day *		Name: Rain Carbon				EDD				ening in d				
Rush 2 Business day * * need approval from Bu		PO #: <u>4500610028</u> BV Quote #			Regulation				PROJ	ECT SPE	CIFIC	сомм	ENTS	
Veritas	licau		Cristina Bacc	hus	Regulation									
Client Signature: Robin			Received by:											
		Engineer	Affiliation:											
		10:30 AM	Date/Time:											
Unless otherwise agreed to in u conditions	vriting, wor	k submitted on this Chain of Cu	istody is subject to	Bureau Verita	is Laboratories'	standard Terms	and Conditions. Signing of this Chain of Cu	stody documen	t is acknowled	gment and	acceptar	ce of our	terms ava	ilable at h



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ttp://www.bvlabs.com/terms-and-



15 Keefer Coun Hamilton, Ontario L&E 4V4 Phone 905 573 9533 Fax 905 578 5167

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## PAH Sample Submission Sheet

	ple Date	30-M	ay-24			Purchase Ord	ler Number	32	660
Pro	oject ID	Rain Carbon	Canada Inc			Result	a to:	jenniller davies	@rotekinc.com
Sampl	ler Model	TE-1	000			Result	s to:		otekino com
Site (	Operator	York Zhang	Robin Hart			Result	s to:		incarbon com
						Results	s to:	i i i i i i i i i i i i i i i i i i i	aincarbon.com
		PUF	Maxxam	install Date	-		1		
tation No.	Sample Date	Cartridge #	Filter ID #	Install Time	MAGN On HH2O	Removal Data Removal Time	MAGN Off IHH20	Total Volume	Submission Date
TN29164	30 May 2024	PUF #1	YWEB26-01	27-May-24		31-May-34			
	4.000	YWE025-01	(Weilee e)	16.00	38	12:30	36	325.9	June 4 2024
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Com	ment 2 :								

	www.bvtabs.co	mario "LSN 2L8 17	Phone	1-800-668 (905) 817- (905) 817-	5700		Cha	in of	Cus	stody		1 - PUF	PA		YSIS R	EQUES		1f	2_
New Content of Content	ronmental Inc Co	Contraction of the second s		ironmental	(Ha)	6	8		USTRIAL		Ince T015A)	ocarbon	C10-C16)	ecify					
Address: 15 Keefer Court Ham	iton Ad	frees 15 Keefer	Court Hami	ton	ches a	es of Hg)		AIR	DNUTH		(refer	ic Hyde	d F2 (	ds ese	X T013			3	8
ON LBE 4V4		ON LIBE 4	V4		W (III	inch	13	ORA	ERCI		00	Iphet	0) ar	• big	EP	뮍			LIS
E-mail: poore@rotekinc.com	Er	vail: jennifer.da	vies@rotek	inc.com	cou	ILUNI (	CR.	NDO	NINC	GAS	OFV	NiciA	10-8	SC's	UF by	ALV			ONS
Ph: 905 573 9533 Sampled by: Robin Hart	Ph	905 573 8	533		START VACUUM (inches of Hg)	END VACUUM (inches	SOIL VAPOUR	AMBIENTANDOOR	AMBIENTICOMMERCIALINDUSTRIAL	SUB-SLAB GAS	FULL LIST OF VOCs (reference	BTEXAromatic/Aliphatic Hydrocarbon Fractions	BTEXFT (C8-C10) and F2 (C10-C16)	Selected VOC's - please specify	PAHs on PUF by EPA TO13	DO NOT ANALYZE		and a second	CANISTERS NOT USED
Field Sample I	D	BY PUF IC	Flow Regulator Senal #	Retrieval Date		-	00		Î	M		<u></u>	ш	6	<u>a</u>	-			5
STN29164 30-May	PUF #1	YWE025-0		31-May									_		x				
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TAT Requirement STD 10 Business day Rush 5 Business day Rush 2 Business day Rush Other *	PO # 326 Buteau Vertas C Bureau Vertas C	n Carbon Canad 69 uole # center Cristina Ra			EDO Regula Other		ON 1 ON 4 BC C	53 18		501 VI 2) ple PRO	ase in tpour i ase is JECT	or amou it all can SPECI	int av Isters o FIC CI	om the c	tain of		iples are even if i		
Client Bigneture : Paul Daszko	Traes Groenen	Received by	4/19	CUPS	ID	M		-				BaP on y results	1211	-	affrai	ncarbor	com.		
Detectional Allowed	10-00 000	Contraction from	0.0		Inu		n-,0	-		robin	hart@	raincar	bon.cd				otekinu.	.com,	
Dete/Time: 04-Jun-24	0:00 AM				64		0:0		1			tekinc.c		5012-53			Sinter		

Page 2 of 2

State.																		CAM	-CD-01	302 /3	
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VENETAS		www.bvla	bs.com			(905) 817-	5777									ANAL	YS <b>I</b> S RE	EQUES	TED		
	INVOICE INFORMAT	ON		REPORT	NFORMAT	ON							5A)								
Company Nar	ne: Rain Carbo	on Canada Ind	Company N	ame:	Rain Carb	on Canada	<u> </u>				rrial		FULL LIST OF VOCs (reference T015A)	Irbon	BTEX/F1 (C6-C10) and F2 (C10-C16)	4					
Contact Name	e:Robin Hart		Project Man	ager:	Robin Har	t	START VACUUM (inches of Hg)	of Hg)			AMBIENT/COMMERCIAL/INDUSTRIAL		ferenc	BTEX/Aromatic/Aliphatic Hydrocarbon Fractions	2 (C1(	- please specify					
Address:	725Strathearne Aven	ue	Address:	725Strathe	arne Avenu	e	inche	ches o		AIR	scial/		Cs (ref	atic H	and F	lease					JSED
	Hamilton, ON		_	Hamilton, C	ON		N	(inc		Ь R	MER	S	Š	Alip 1	10)	5					1
E-mail:	robin.hart@raincarbo	n.com	E-mail:	robin hart@	raincarbon	.com	ACUL	MUU	OUR	DONI	/com	B GA	TOF	natic//	2-90)	voc.					RS N
Ph:	1-647-281-8094		Ph:	1-647-281-	8094			AC	₹			۲ <u>۲</u>	<u></u> ≌	Aroi	Ē	ted					
Sampled by:	Robin Hart		_				STAR	END VACUUM (inches	SOIL VAPOUR	AMBIENT/INDOOR AIR	AMB	SUB-SLAB GAS	FULL	BTEX// Fractic	втех	Selected VOC's	Other				CANISTERS NOT USED
	Field Sample ID				Flow Regulator Serial #	Collection Date															
East Canister	VOC May 6, 2024		14537		26-Apr-24										х						
North Canister	VOC May 6, 2024			7910		26-Apr-24										х					
Old West Cani	ister VOC May 6, 2024			7825		26-Apr-24										Х					
South Canister	r VOC May 6, 2024			17189		26-Apr-24										х					
New West Car	nister VOC May 6, 2024	ļ		7909		26-Apr-24										Х					
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Rush Other *		ritas Quote #:						BC C	SR		PRC	JECT	SPEC	FIC CO	OMMEN	NTS					
		ritas Contact:	Cristina Ba	cchus	-	Other															
* need approv	val from Bureau Veritas	Task Orde	er/Line Item	1								4									
Client Signature:	: Robin Har <u>t</u>		Received by	:																	
Date/Time:	10/May/24 15:00 PM			Date/Time:												UNUS					
	agreed to in writing, work sub		ain of Custody is	subject to Burea	au Veritas Lab	oratories' stan	dard Teri	ns and (	Condition	ns. Sigr	ning of	this Cha	in of Cus	tody docu	ument is	acknowled	dgment ar	nd accept	tance of o	ur terms a	available



15 Keeler Court Hamilton, Ontario L8E 4V4 Phone 905 573 9533 Fax 905 578 5167

## VOC Canister Sample Submission Sheet

Sample Date	06-May-24
Project Name	Rain Carbon Canada Inc.
Contact Name	Paul Daszko
Contact Number	905 531 2815

Purchase Order Number	32669
Results to:	jennifer davies@rotekinc.com
Results to:	daszko@rotekinc.com
Results to:	robin.hart@raincarbon.com
Results to:	york zhang@raincarbon.com

Station Number	Canister ID Number	Sample Date	Installation Date	Installation Time	Initial Pressure	Time On	Time Off	Elapsed Time	Final Pressure	Retrieval Date	Retrieval Time
		dd/mm/yy	dd/mm/yy	EST	inHg	EST	EST	Hours	inHg	dd/mm/yy	EST
STN29164	23747	06-May-24	01-May-24	12:30	-30.0	00:01	00:01	24.0	-8.5	07-May-24	12:45
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	A		6740 Ca Mississa	11100001010	111111111 D7003			9 1		Cha	in of	Cus	tody	Form	- Sun	nma**			F	Page 2	_of_2
Company Nan Contact Name Address:	15 Keefer Co	itek Erwiro iul Daszko	nmental inc	15 Keefer	Rotek Envi Paul Deszł Court Hemit	1	(inches of Hg)	ches of Hgl		R AIR	AMBIENTCOMMENCIAL/MOUSTRIAL		OF VOCs (reference TO15A)	BTEXIAronaticiAlphatic Hydrocerbon Fractione	BTEX/F1 (C6-C10) and F2 (C10-C16)	please specify	aiyza			UISED	
E-mail: Ph: Samplod by:	ON LRF 4V4 poore@rotek 905 573 953 Robin Hat	402		E-mail: Ph:	ON L8E 40 jannifer.dz 905 573 9	ovies@roten	ne com	START VACUUM (inches of Hg)	END VACUUM (Inches of Hg)	SOL VAPOUR	AMBIENTINDOOR AIR	AMDIENTICOMME	SUB-SLAB GAS	FULL LIST OF VO	BTEX/AromaticiAlig Fractions	BTEXF1 (CS-C10	Selected VOC's - please specify	Other - Do Not Analyze			CANISTERS NOT USED
	Field	Sampie II	5		Canister Serial #	Flow Regulator Serial #	Retrieval Date														
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	INVOICE INFL <sup>1 V</sup>	AIR-001			JRMAT	< (905) 817 TION	5777	1	1	1	1	1	8	-	-	ANAL	YSIS RE	QUEST	ED	_	
Company Na Contact Nam Address:			roject Ma	nager:	Robin Ha		START VACUUM (Inches of Hg)	END VACUUM (Inches of Hg)	ghatak		AMBIENT/COMMERCIAL/INDUSTRIAL	NO.5	(reference TD15A	BTEX(Aromatic/Aliphatic Hydrocarbon Fractions	BTEX(F1 (C8-C10) and F2 (C10-C18)	Selected VOC's + places specify					the second
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Ph:	1-647-281-9004	P	hç	1-847-281-	d094		TVI	AC	VAP	ENE	UIN:	S	LIST	E E	E (	> pa				- a.	TER
sampled by:	Robin Hart						STAR	ONE	SOIL VAPOUR	AMBIENT/INDOOR AIR	MBII	SUB-SLAB	FULL LIST OF VOCs	TEXU	TEX	a act	Other				CANISTERS NOT USED
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15 Keefer Court Hamilton Ontario L8E 4V4 Phone 905 573 9533 Fax 905 578 5167

## VOC Canister Sample Submission Sheet

Sample Date	18-May-24
Project Name	Rain Carbon Canada Inc.
Contact Name	Paul Daszko
Contact Number	905 531 2815

Purchase Order Number	32669
Results to:	jennifer.davies@rotekinc.com
Results to:	daszko@rotekinc.com
Results to:	robin.hart@raincarbon.com
Results to:	york.zhang@raincarbon.com

Station Number	Canister ID Number	Sample Date	Installation Date	Installation Time	Initial Pressure	Time On	Time Off	Elaosed Time	Final Prossure	Retrieval Date	Retrieval Time
of the second second		dd/mm/yy	dd/mm/yy	EST	inHg	EST	EST	Hours	inHg	dd/mm/yy	EST
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Company Nan	ne: Rotek Enviro	nmental inc C	ompany )	lame:	Rotek Envi	itonmental I	1	1			4		015	5	Ŧ					
Contact Name	: Paul Daszko	P	roject Ma	nager:	Paul Daszł	(0	of Hgi	(D)H			NINTRUO		FULL LIST OF VOCs (reference TO15A)	BTEX/Aronatic/Algobatic Hydrocarbon Fractions	BTEX0F1 (C6-C10) and F2 (C10-C16)	Selected VOC's - pieze specify				
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E-mail:	poore@rotekinc.com	E	mail:	jennifer da	vies@rotek	inc.com	CUNN	NUN (	DUR	OGN	COM	GAS	OF	aticiA	CB-CC	50	Not			IS NC
Ph:	905 573 9533	P	hc	905 573 95	33		TUA	VAC	VAPOUR	ENTI	BIENTICOM	SLAB	LIST	Aron	111	ted V	°0-			STEP
Sampled by:	Robin Hait						START VACUUM (inches	ENO	SOIL	AMBIENTINDOOR	AMBI	SUB-SLAB GAS	FULL	BTEX/Aro	BTEX	Salec	Other			CANISTERS NOT USED
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* need approv	at from Bureau Ventas	ine Item			1					_			or Benz					100		
lient Signature	Paul Dasako	-	Received by	$\sim$	7	-9-	21	n	-	1							incarbon.			
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VENITAS		www.bvat				: (905) 817-	5777					<u> </u>				ANAL	YSIS RI	EQUES	TED		
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Company Nar	me: Rain Carbon	Canada Inc	c. Company Na	ame:	Rain Carb	oon Canada	_				TRIAL		e TO1	arbon	0-C16	<u>ل</u>					
Contact Name	e:Robin Hart		Project Man	ager:	Robin Hart	t	START VACUUM (inches of Hg)	of Hg)			AMBIENT/COMMERCIAL/INDUSTRIAL		FULL LIST OF VOCs (reference TO15A	BTEX/Aromatic/Aliphatic Hydrocarbon Fractions	BTEX/F1 (C6-C10) and F2 (C10-C16)	Selected VOC's - please specify					
Address:	725Strathearne Avenue	•	Address:	725Strathea	arne Avenu	ıe	inche	thes o		AIR	<b>KCIAL/I</b>		Ss (ret	latic H	and F	ease					JSED
	Hamilton, ON		4	Hamilton, C	NC		N (	(inc		No.	MER	S	ğ	<b>\lip</b> t	10)	d .					OT (
E-mail:	robin.hart@raincarbon.	<u>com</u>	E-mail:	<u>robin hart@</u>	Draincarbon,	i <u>.com</u>	ACUL	MUU	OUR	DONI/	/com	B GA	TOF	natic//	2-92)	ço V					RS N
Ph:	1-647-281-8094		Ph:	1-647-281-8	8094		Ν	VAC	VAF	ENT	ENT	SLA	<u>-N</u>	Aror	/F1	ted					STE
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Date/Time:	May 31,2024 10:30 AN	v		Date/Time:	<u> </u>							PLE	ASE F	<b>ETUR</b>	N ALL	UNUS	ED EQ	UPME	INT		
	agreed to in writing, work submi abs.com/terms-and-conditions	itted on this Ch	ain of Custody is s	subject to Burea	au Veritas Labo	oratories' stanc	lard Tern	ns and C	ondition	ıs. Sign	ning of t	this Cha	in of Cus	tody docu	iment is a	acknowled	lgment ar	nd accept	ance of ou	ur terms a	available



15 Keeler Court Hamilton Ontario L8E 4V4 Phone 905 573 9533 Fax 905 578 5167

## VOC Canister Sample Submission Sheet

Sample Date	18-May-24
Project Name	Rain Carbon Canada Inc
Contact Name	Paul Daszko
Contact Number	905 531 2815

Purchase Order Number	32669
Results to:	jennifer davies@rotekinc.com
Results to:	daszko@rotekinc.com
Results to:	rebin hart@raincarbon.com
Results to:	york.zhang@raincarbon.com

Station	Canister ID Number	Sample Date	Sample Date	Installation Date	Installation Time	Initial Pressure	Time On	Time Off	Elapsed Time	Final Pressure	Retrieval Date	Retrieval Time
_		dd/mm/yy	dd/mm/yy	EST	inHg.	EST	EST	Hours	inHg	dd/mm/yy	EST	
STN29164	17169	30-May-24	27-May-24	16:00	-30.0	00.01	00:01	24.0	-8.5	31-May-24	15:30	
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Gantact Name	e: Paul Duszko	Project M	snager:	Paul Deszk	0	soft	I HO			SUDIA	SUDA	oueuo	preno	2 (CII	spec				
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	ON L8E 4V4		ON L8E 4V4 E-mail: jemsfer.deviss@rotekinc.co			1	(fine	12	OOR	CUNE D	3	No	Mph	101	a.	Not Analyze			OTL
E-mail:	poore@roteking.com	E-mail:				acu	EVCIM	OUR	UND	COM	B GA	TOF	Table	5	VOC	o Not			KS N
Ph: Sampled by:	905 573 9533 Robin Hart	Phi	905 573 65	33		START VACUUM (inches of Hg)	END VACINIM (Inches of Hg)	END VACINIM	AMBIENTINDOOR AN	ANDIENTICOMMERCIAL/MIDUSTRIAL	SUB-SLAB GAS	817 118	BTEX/Aromatic/Alphatic Hydrocarbon Precisions	BTEX/F1 (06-C10) and F2 (010-C16)	Selected VDC's - please specify	Other - Do			CANISTERS NOT USED
	Field Sample I	0	Canister Serial #	Flow Regulator Seriel #	Retrieval Date	5	0	ă	A	2	31	đ	52	5	ŭ	ō			3
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	Rush 5 Business day *         Name: Fain Carbon Canada Inc.           Rush 2 Business day *         PO # 32669           Kunki Offer         Bureau Vermar Cane #           Bureau Vermar Conter #         Bureau Vermar Conter #				Regde		ON 1 ON 4 BC C	10	SIDC						đ				
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Client Eignature Date/Time:	Paul Daszko 04-Jun-24 /	Dibeam	Received to Date/Time	201	M10610	1011 4	1	D:r			for	iin.bar	10.00	arbon.			ncarbon.cor avies@rotel		n;

Page 2 of 2

June 2024

APPENDIX D

# Certificates of Analysis



Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: n/a

#### Attention: Robin Hart

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/05/28 Report #: R8167157 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4D9620 Received: 2024/05/09, 14:55

Sample Matrix: Puf And Filter # Samples Received: 5

		Date	Date		
Analyses	Quantity	/ Extracted	Analyzed	Laboratory Method	Analytical Method
Calculated Polyaromatic Hydrocarbons	5	2024/05/10	2024/05/10	BRL SOP-00201	
PAH's in MM5 SamplingTrains (CARB429mod) (1)	5	2024/05/12	2024/05/27	BRL SOP-00201	CARB429(ARBM1,M2)mod
Air Volume from HiVol Sampling	5	N/A	2024/05/10		

#### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Analysis was conducted according to Bureau Veritas' method BRL SOP-00201 and modified where applicable based on the sample matrix. Only the following parameters are accredited: Napthalene, 2-Methylnapthalene, Acenapthylene, Acenapthene, Anthracene, Benzo (a) anthracene, Dibenzo (a,h) anthracene, Fluorene, Benzo (e) pyrene, Benzo (a) pyrene, Benzo (k) fluoranthene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Chrysene, Fluoranthene, Indeno (1,2,3 cd) pyrene. Additional parameters are not Standards Council of Canada accredited for this matrix.



Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: n/a

### **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/05/28 Report #: R8167157 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4D9620 Received: 2024/05/09, 14:55

**Encryption Key** 

Datchus

Cristina (Maria) Bacchus Project Manager 28 May 2024 17:01:52

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



## **RESULTS OF ANALYSES OF PUF AND FILTER**

Bureau Veritas ID		ZCY619	ZCY620	ZCY621	ZCY622	
Sampling Date		2024/05/06	2024/05/06	2024/05/06	2024/05/06	
COC Number		n/a	n/a	n/a	n/a	
	UNITS	EAST MONITOR PAH MAY 6, 2024 PUF # 1 (ZAE655-01)	NORTH MONITOR PAH MAY 6, 2024 PUF # 2 (ZAE656-01)	OLD WEST MONITOR PAY MAY 6,2024 PUF # 3 (ZAE657-01)	SOUTH MONITOR PAH MAY 6, 2024 PUF # 4 (ZAE658-01)	QC Batch
Volume	m3	316.3	293.1	334.7	308.8	ONSITE
QC Batch = Quality Control B	atch					

Bureau Veritas ID Sampling Date		ZCY623 2024/05/06	
COC Number		n/a	
	UNITS	NEW WEST MONITOR PAH MAY 6,2024 PUF # 5 (ZAE659-01)	QC Batch
Volume	m3	306.5	ONSITE
QC Batch = Quality Control B	atch		



## SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Bureau Veritas ID		ZCY619	ZCY620	ZCY621	ZCY622		
Sampling Date		2024/05/06	2024/05/06	2024/05/06	2024/05/06		
COC Number		n/a	n/a	n/a	n/a		
	UNITS	EAST MONITOR PAH MAY 6, 2024 PUF # 1 (ZAE655-01)	NORTH MONITOR PAH MAY 6, 2024 PUF # 2 (ZAE656-01)	OLD WEST MONITOR PAY MAY 6,2024 PUF # 3 (ZAE657-01)	SOUTH MONITOR PAH MAY 6, 2024 PUF # 4 (ZAE658-01)	RDL	QC Batch
Semivolatile Organics							
Benzo(a)pyrene	ug	0.54	0.10	0.22	0.28	0.10	9388591
Surrogate Recovery (%)							
D10-2-Methylnaphthalene	%	83	64	81	70		9388591
D10-Fluoranthene	%	83	86	82	70		9388591
D10-Fluorene (FS)	%	82	70	78	66		9388591
D10-Phenanthrene	%	81	78	78	70		9388591
D12-Benzo(a)anthracene	%	82	88	88	93		9388591
D12-Benzo(a)pyrene	%	83	81	82	84		9388591
D12-Benzo(b)fluoranthene	%	100	88	88	91		9388591
D12-Benzo(ghi)perylene	%	84	89	88	91		9388591
D12-Benzo(k)fluoranthene	%	74	87	87	90		9388591
D12-Chrysene	%	83	86	86	87		9388591
D12-Indeno(1,2,3-cd)pyrene	%	85	90	89	93		9388591
D12-Perylene	%	85	88	87	91		9388591
D14-Dibenzo(a,h)anthracene	%	85	89	89	93		9388591
D14-Terphenyl (FS)	%	76	82	76	66		9388591
D8-Acenaphthylene	%	95	77	89	74		9388591
D8-Naphthalene	%	75	61	66	46 (1)		9388591
RDL = Reportable Detection Lin QC Batch = Quality Control Bat (1) Recovery below control lim	ch	nalene is not a paramet	er of concern.				



## SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Bureau Veritas ID		ZCY623		
Sampling Date		2024/05/06		
COC Number		n/a		
	UNITS	NEW WEST MONITOR PAH MAY 6,2024 PUF # 5 (ZAE659-01)	RDL	QC Batch
Semivolatile Organics				
Benzo(a)pyrene	ug	0.80	0.10	9388591
Surrogate Recovery (%)				
D10-2-Methylnaphthalene	%	84		9388591
D10-Fluoranthene	%	85		9388591
D10-Fluorene (FS)	%	80		9388591
D10-Phenanthrene	%	81		9388591
D12-Benzo(a)anthracene	%	92		9388591
D12-Benzo(a)pyrene	%	92		9388591
D12-Benzo(b)fluoranthene	%	113		9388591
D12-Benzo(ghi)perylene	%	92		9388591
D12-Benzo(k)fluoranthene	%	82		9388591
D12-Chrysene	%	93		9388591
D12-Indeno(1,2,3-cd)pyrene	%	94		9388591
D12-Perylene	%	92		9388591
D14-Dibenzo(a,h)anthracene	%	95		9388591
D14-Terphenyl (FS)	%	76		9388591
D8-Acenaphthylene	%	93		9388591
D8-Naphthalene	%	54		9388591
RDL = Reportable Detection Liı QC Batch = Quality Control Bat				

Page 5 of 9 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



## CALCULATED SEMIVOLATILE ORGANICS (PUF AND FILTER)

Bureau Veritas ID		ZCY619		ZCY620		ZCY621		
Sampling Date		2024/05/06		2024/05/06		2024/05/06		
COC Number	n/a			n/a		n/a		
	UNITS	EAST MONITOR PAH MAY 6, 2024 PUF # 1 (ZAE655-01)	RDL	NORTH MONITOR PAH MAY 6, 2024 PUF # 2 (ZAE656-01)	RDL	OLD WEST MONITOR PAY MAY 6,2024 PUF # 3 (ZAE657-01)	RDL	QC Batch
Calculated Parameters								
Benzo(a)pyrene	ug/m3	0.00171	0.00032	0.00034	0.00034	0.00066	0.00030	9386569
RDL = Reportable Detect QC Batch = Quality Cont								

Bureau Veritas ID		ZCY622		ZCY623		
Sampling Date		2024/05/06		2024/05/06		
COC Number		n/a		n/a		
	UNITS	SOUTH MONITOR PAH MAY 6, 2024 PUF # 4 (ZAE658-01)	RDL	NEW WEST MONITOR PAH MAY 6,2024 PUF # 5 (ZAE659-01)	RDL	QC Batch
Calculated Parameters						
Benzo(a)pyrene	ug/m3	0.00091	0.00032	0.00261	0.00033	9386569
RDL = Reportable Detection I QC Batch = Quality Control B						



## **GENERAL COMMENTS**

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



### QUALITY ASSURANCE REPORT

QA/QC								
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9388591	CTC	Spiked Blank	D10-2-Methylnaphthalene	2024/05/27		67	%	50 - 150
			D10-Fluoranthene	2024/05/27		90	%	50 - 150
			D10-Phenanthrene	2024/05/27		78	%	50 - 150
			D12-Benzo(a)anthracene	2024/05/27		93	%	50 - 150
			D12-Benzo(a)pyrene	2024/05/27		89	%	50 - 150
			D12-Benzo(b)fluoranthene	2024/05/27		96	%	50 - 150
			D12-Benzo(ghi)perylene	2024/05/27		91	%	50 - 150
			D12-Benzo(k)fluoranthene	2024/05/27		91	%	50 - 150
			D12-Chrysene	2024/05/27		91	%	50 - 150
			D12-Indeno(1,2,3-cd)pyrene	2024/05/27		92	%	50 - 150
			D12-Perylene	2024/05/27		95	%	50 - 150
			D14-Dibenzo(a,h)anthracene	2024/05/27		89	%	50 - 150
			D8-Acenaphthylene	2024/05/27		76	%	50 - 150
			D8-Naphthalene	2024/05/27		66	%	50 - 150
			Benzo(a)pyrene	2024/05/27		88	%	50 - 150
9388591	CTC	RPD	Benzo(a)pyrene	2024/05/27	2.9		%	50
9388591	CTC	Method Blank	D10-2-Methylnaphthalene	2024/05/27		86	%	50 - 150
			D10-Fluoranthene	2024/05/27		107	%	50 - 150
			D10-Phenanthrene	2024/05/27		97	%	50 - 150
			D12-Benzo(a)anthracene	2024/05/27		105	%	50 - 150
			D12-Benzo(a)pyrene	2024/05/27		100	%	50 - 150
			D12-Benzo(b)fluoranthene	2024/05/27		107	%	50 - 150
			D12-Benzo(ghi)perylene	2024/05/27		101	%	50 - 150
			D12-Benzo(k)fluoranthene	2024/05/27		102	%	50 - 150
			D12-Chrysene	2024/05/27		102	%	50 - 150
			D12-Indeno(1,2,3-cd)pyrene	2024/05/27		102	%	50 - 150
			D12-Perylene	2024/05/27		106	%	50 - 150
			D14-Dibenzo(a,h)anthracene	2024/05/27		100	%	50 - 150
			D8-Acenaphthylene	2024/05/27		97	%	50 - 150
			D8-Naphthalene	2024/05/27		86	%	50 - 150
			Benzo(a)pyrene	2024/05/27	<0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Angel Guerrero, Supervisor, Ultra Trace Analysis, HRMS and SVOC

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Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: n/a

#### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/05/28 Report #: R8167156 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4D7821 Received: 2024/05/08, 10:43

Sample Matrix: Puf And Filter # Samples Received: 1

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Calculated Polyaromatic Hydrocarbons	1	2024/05/08	2024/05/08	BRL SOP-00201	
PAH's in MM5 SamplingTrains (CARB429mod) (1)	1	2024/05/12	2024/05/28	BRL SOP-00201	CARB429(ARBM1,M2)mod
Air Volume from HiVol Sampling	1	N/A	2024/05/08		

#### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Analysis was conducted according to Bureau Veritas' method BRL SOP-00201 and modified where applicable based on the sample matrix. Only the following parameters are accredited: Napthalene, 2-Methylnapthalene, Acenapthylene, Acenapthene, Anthracene, Benzo (a) anthracene, Dibenzo (a,h) anthracene, Fluorene, Benzo (e) pyrene, Benzo (a) pyrene, Benzo (k) fluoranthene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Chrysene, Fluoranthene, Indeno (1,2,3 cd) pyrene. Additional parameters are not Standards Council of Canada accredited for this matrix.



Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: n/a

#### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/05/28 Report #: R8167156 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4D7821 Received: 2024/05/08, 10:43

**Encryption Key** 



Bureau Veritas 28 May 2024 16:41:13

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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Rotek Environmental Inc. Client Project #: RAIN CARBON CANADA INC Your P.O. #: 32669 Sampler Initials: RH

## **RESULTS OF ANALYSES OF PUF AND FILTER**

Bureau Veritas ID		ZCO944				
Sampling Date		2024/05/06				
COC Number		n/a				
	UNITS	STN29164 06-MAY PUF#1	QC Batch			
Volume	m3	325.9	ONSITE			
QC Batch = Quality Control Batch						

Page 3 of 8 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, LSN 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



# SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Bureau Veritas ID		ZCO944		
Sampling Date		2024/05/06		
COC Number		n/a		
	UNITS	STN29164 06-MAY PUF#1	RDL	QC Batch
Semivolatile Organics				
Benzo(a)pyrene	ug	0.16	0.10	9388591
Surrogate Recovery (%)				
D10-2-Methylnaphthalene	%	80		9388591
D10-Fluoranthene	%	96		9388591
D10-Fluorene (FS)	%	88		9388591
D10-Phenanthrene	%	91		9388591
D12-Benzo(a)anthracene	%	95		9388591
D12-Benzo(a)pyrene	%	86		9388591
D12-Benzo(b)fluoranthene	%	95		9388591
D12-Benzo(ghi)perylene	%	92		9388591
D12-Benzo(k)fluoranthene	%	92		9388591
D12-Chrysene	%	93		9388591
D12-Indeno(1,2,3-cd)pyrene	%	93		9388591
D12-Perylene	%	92		9388591
D14-Dibenzo(a,h)anthracene	%	92		9388591
D14-Terphenyl (FS)	%	88		9388591
D8-Acenaphthylene	%	94		9388591
D8-Naphthalene	%	77		9388591
RDL = Reportable Detection Li QC Batch = Quality Control Ba				

Page 4 of 8 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, LSN 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



# CALCULATED SEMIVOLATILE ORGANICS (PUF AND FILTER)

Bureau Veritas ID		ZCO944						
Sampling Date		2024/05/06						
COC Number		n/a						
	UNITS STN29164 06-MAY RD							
Calculated Parameters								
Benzo(a)pyrene	ng/m3	0.49	0.31	9381528				
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Page 5 of 8 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



# **GENERAL COMMENTS**

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



## QUALITY ASSURANCE REPORT

QA/QC								
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9388591	CTC	Spiked Blank	D10-2-Methylnaphthalene	2024/05/27		67	%	50 - 150
			D10-Fluoranthene	2024/05/27		90	%	50 - 150
			D10-Phenanthrene	2024/05/27		78	%	50 - 150
			D12-Benzo(a)anthracene	2024/05/27		93	%	50 - 150
			D12-Benzo(a)pyrene	2024/05/27		89	%	50 - 150
			D12-Benzo(b)fluoranthene	2024/05/27		96	%	50 - 150
			D12-Benzo(ghi)perylene	2024/05/27		91	%	50 - 150
			D12-Benzo(k)fluoranthene	2024/05/27		91	%	50 - 150
			D12-Chrysene	2024/05/27		91	%	50 - 150
			D12-Indeno(1,2,3-cd)pyrene	2024/05/27		92	%	50 - 150
			D12-Perylene	2024/05/27		95	%	50 - 150
			D14-Dibenzo(a,h)anthracene	2024/05/27		89	%	50 - 150
			D8-Acenaphthylene	2024/05/27		76	%	50 - 150
			D8-Naphthalene	2024/05/27		66	%	50 - 150
			Benzo(a)pyrene	2024/05/27		88	%	50 - 150
9388591	СТС	RPD	Benzo(a)pyrene	2024/05/27	2.9		%	50
9388591	CTC	Method Blank	D10-2-Methylnaphthalene	2024/05/27		86	%	50 - 150
			D10-Fluoranthene	2024/05/27		107	%	50 - 150
			D10-Phenanthrene	2024/05/27		97	%	50 - 150
			D12-Benzo(a)anthracene	2024/05/27		105	%	50 - 150
			D12-Benzo(a)pyrene	2024/05/27		100	%	50 - 150
			D12-Benzo(b)fluoranthene	2024/05/27		107	%	50 - 150
			D12-Benzo(ghi)perylene	2024/05/27		101	%	50 - 150
			D12-Benzo(k)fluoranthene	2024/05/27		102	%	50 - 150
			D12-Chrysene	2024/05/27		102	%	50 - 150
			D12-Indeno(1,2,3-cd)pyrene	2024/05/27		102	%	50 - 150
			D12-Perylene	2024/05/27		106	%	50 - 150
			D14-Dibenzo(a,h)anthracene	2024/05/27		100	%	50 - 150
			D8-Acenaphthylene	2024/05/27		97	%	50 - 150
			D8-Naphthalene	2024/05/27		86	%	50 - 150
			Benzo(a)pyrene	2024/05/27	<0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



## VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Angel Guerrero, Supervisor, Ultra Trace Analysis, HRMS and SVOC

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Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: n/a

### **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/06/07 Report #: R8181894 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4F3028 Received: 2024/05/22, 16:28

Sample Matrix: Puf And Filter # Samples Received: 5

		Date	Date		
Analyses	Quantity	/ Extracted	Analyzed	Laboratory Method	Analytical Method
Calculated Polyaromatic Hydrocarbons	5	2024/05/23	2024/05/23	BRL SOP-00201	
PAH's in MM5 SamplingTrains (CARB429mod) (1)	5	2024/05/25	2024/05/30	BRL SOP-00201	CARB429(ARBM1,M2)mod
Air Volume from HiVol Sampling	5	N/A	2024/05/23		

### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Analysis was conducted according to Bureau Veritas' method BRL SOP-00201 and modified where applicable based on the sample matrix. Only the following parameters are accredited: Napthalene, 2-Methylnapthalene, Acenapthylene, Acenapthene, Anthracene, Benzo (a) anthracene, Dibenzo (a,h) anthracene, Fluorene, Benzo (e) pyrene, Benzo (a) pyrene, Benzo (k) fluoranthene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Chrysene, Fluoranthene, Indeno (1,2,3 cd) pyrene. Additional parameters are not Standards Council of Canada accredited for this matrix.



Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: n/a

## **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/06/07 Report #: R8181894 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4F3028 Received: 2024/05/22, 16:28

**Encryption Key** 

Datchus

Cristina (Maria) Bacchus Project Manager 07 Jun 2024 17:22:50

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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## **RESULTS OF ANALYSES OF PUF AND FILTER**

Bureau Veritas ID		ZFS441	ZFS442	ZFS443	ZFS444					
Sampling Date		2024/05/18	2024/05/18	2024/05/18	2024/05/18					
COC Number		n/a	n/a	n/a	n/a					
	UNITS	EAST MONITOR PAH MAY 18 ZAF037-01	NORTH MONITOR PAH MAY 18 ZAF038-01	OLD WEST MONITOR PAY MAY 18 ZAF039-01	SOUTH MONITOR PAH MAY 18 ZAF040-01	QC Batch				
Volume	m3	307.4	294.4	332.9	308.2	ONSITE				
QC Batch = Quality Control Ba	QC Batch = Quality Control Batch									

Bureau Veritas ID		ZFS445	
Sampling Date		2024/05/18	
COC Number		n/a	
	UNITS	NEW WEST MONITOR PAH MAY 18 ZAF041-01	QC Batch
Volume	m3	308.7	ONSITE
QC Batch = Quality Control Ba	atch		

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## SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Bureau Veritas ID		ZFS441		ZFS442		ZFS443		
Sampling Date		2024/05/18		2024/05/18		2024/05/18		
COC Number		n/a		n/a		n/a		
	UNITS	EAST MONITOR PAH MAY 18 ZAF037-01	RDL	NORTH MONITOR PAH MAY 18 ZAF038-01	RDL	OLD WEST MONITOR PAY MAY 18 ZAF039-01	RDL	QC Batch
Semivolatile Organics								
Benzo(a)pyrene	ug	<0.020 (1)	0.52	<0.020 (1)	0.34	<0.020 (1)	0.38	9413991
Surrogate Recovery (%)								
D10-2-Methylnaphthalene	%	83		81		67		9413991
D10-Fluoranthene	%	91		90		67		9413991
D10-Fluorene (FS)	%	90		90		70		9413991
D10-Phenanthrene	%	88		88		67		9413991
D12-Benzo(a)anthracene	%	87		88		83		9413991
D12-Benzo(a)pyrene	%	82		85		81		9413991
D12-Benzo(b)fluoranthene	%	104		102		95		9413991
D12-Benzo(ghi)perylene	%	83		87		79		9413991
D12-Benzo(k)fluoranthene	%	80		80		75		9413991
D12-Chrysene	%	94		89		89		9413991
D12-Indeno(1,2,3-cd)pyrene	%	85		88		82		9413991
D12-Perylene	%	76		85		77		9413991
D14-Dibenzo(a,h)anthracene	%	84		86		82		9413991
D14-Terphenyl (FS)	%	80		80		62		9413991
D8-Acenaphthylene	%	95		97		76		9413991
D8-Naphthalene	%	76		81		41 (2)		9413991

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

(2) Recovery below control limit, indicating possible biased low of the corresponding native. However Naphthalene is not a parameter of concern.



## SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Bureau Veritas ID		ZFS444		ZFS445		
Sampling Date		2024/05/18		2024/05/18		
COC Number		n/a		n/a		
	UNITS	SOUTH MONITOR PAH MAY 18 ZAF040-01	RDL	NEW WEST MONITOR PAH MAY 18 ZAF041-01	RDL	QC Batch
Semivolatile Organics						
Benzo(a)pyrene	ug	<0.020 (1)	0.34	0.040	0.10	9413991
Surrogate Recovery (%)			• •			
D10-2-Methylnaphthalene	%	86		76		9413991
D10-Fluoranthene	%	87		82		9413991
D10-Fluorene (FS)	%	86		78		9413991
D10-Phenanthrene	%	84		80		9413991
D12-Benzo(a)anthracene	%	87		94		9413991
D12-Benzo(a)pyrene	%	81		82		9413991
D12-Benzo(b)fluoranthene	%	95		92		9413991
D12-Benzo(ghi)perylene	%	83		90		9413991
D12-Benzo(k)fluoranthene	%	77		90		9413991
D12-Chrysene	%	85		90		9413991
D12-Indeno(1,2,3-cd)pyrene	%	85		92		9413991
D12-Perylene	%	81		90		9413991
D14-Dibenzo(a,h)anthracene	%	83		90		9413991
D14-Terphenyl (FS)	%	82		76		9413991
D8-Acenaphthylene	%	95		84		9413991
D8-Naphthalene	%	72		62		9413991
RDL = Reportable Detection Li	mit		• •		•	

QC Batch = Quality Control Batch

(1) Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.



# CALCULATED SEMIVOLATILE ORGANICS (PUF AND FILTER)

Bureau Veritas ID		ZFS441		ZFS442		ZFS443		
Sampling Date		2024/05/18		2024/05/18		2024/05/18		
COC Number		n/a		n/a		n/a		
	UNITS	EAST MONITOR PAH MAY 18 ZAF037-01	RDL	NORTH MONITOR PAH MAY 18 ZAF038-01	RDL	OLD WEST MONITOR PAY MAY 18 ZAF039-01	RDL	QC Batch
Calculated Parameters								
Benzo(a)pyrene	ug/m3	<0.0017	0.0017	<0.0012	0.0012	<0.0011	0.0011	9410631
RDL = Reportable Dete QC Batch = Quality Con								

Bureau Veritas ID		ZFS444		ZFS445					
Sampling Date		2024/05/18		2024/05/18					
COC Number		n/a		n/a					
	UNITS	SOUTH MONITOR PAH MAY 18 ZAF040-01	RDL	NEW WEST MONITOR PAH MAY 18 ZAF041-01	RDL	QC Batch			
Calculated Parameters									
Benzo(a)pyrene	ug/m3	<0.0011	0.0011	<0.00032	0.00032	9410631			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



# **GENERAL COMMENTS**

Results relate only to the items tested.

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## **QUALITY ASSURANCE REPORT**

QA/QC								
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9413991	CTC	Spiked Blank	D10-2-Methylnaphthalene	2024/05/30		58	%	50 - 150
			D10-Fluoranthene	2024/05/30		90	%	50 - 150
			D10-Phenanthrene	2024/05/30		80	%	50 - 150
			D12-Benzo(a)anthracene	2024/05/30		92	%	50 - 150
			D12-Benzo(a)pyrene	2024/05/30		86	%	50 - 150
			D12-Benzo(b)fluoranthene	2024/05/30		92	%	50 - 150
			D12-Benzo(ghi)perylene	2024/05/30		90	%	50 - 150
			D12-Benzo(k)fluoranthene	2024/05/30		92	%	50 - 150
			D12-Chrysene	2024/05/30		92	%	50 - 150
			D12-Indeno(1,2,3-cd)pyrene	2024/05/30		92	%	50 - 150
			D12-Perylene	2024/05/30		92	%	50 - 150
			D14-Dibenzo(a,h)anthracene	2024/05/30		88	%	50 - 150
			D8-Acenaphthylene	2024/05/30		64	%	50 - 150
			D8-Naphthalene	2024/05/30		56	%	50 - 150
			Benzo(a)pyrene	2024/05/30		88	%	50 - 150
9413991	CTC	RPD	Benzo(a)pyrene	2024/05/30	2.9		%	50
9413991	CTC	Method Blank	D10-2-Methylnaphthalene	2024/05/30		54	%	50 - 150
			D10-Fluoranthene	2024/05/30		86	%	50 - 150
			D10-Phenanthrene	2024/05/30		74	%	50 - 150
			D12-Benzo(a)anthracene	2024/05/30		90	%	50 - 150
			D12-Benzo(a)pyrene	2024/05/30		84	%	50 - 150
			D12-Benzo(b)fluoranthene	2024/05/30		90	%	50 - 150
			D12-Benzo(ghi)perylene	2024/05/30		86	%	50 - 150
			D12-Benzo(k)fluoranthene	2024/05/30		88	%	50 - 150
			D12-Chrysene	2024/05/30		88	%	50 - 150
			D12-Indeno(1,2,3-cd)pyrene	2024/05/30		88	%	50 - 150
			D12-Perylene	2024/05/30		88	%	50 - 150
			D14-Dibenzo(a,h)anthracene	2024/05/30		84	%	50 - 150
			D8-Acenaphthylene	2024/05/30		62	%	50 - 150
			D8-Naphthalene	2024/05/30		54	%	50 - 150
			Benzo(a)pyrene	2024/05/30	0.020, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



## VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Angel Guerrero, Supervisor, Ultra Trace Analysis, HRMS and SVOC

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: n/a

#### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/06/07 Report #: R8181856 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4F4951 Received: 2024/05/23, 10:47

Sample Matrix: Puf And Filter # Samples Received: 1

		Date	Date		
Analyses	Quantity	• Extracted	Analyzed	Laboratory Method	Analytical Method
Calculated Polyaromatic Hydrocarbons	1	2024/05/23	2024/05/23	BRL SOP-00201	
PAH's in MM5 SamplingTrains (CARB429mod) (1)	1	2024/05/25	2024/05/30	BRL SOP-00201	CARB429(ARBM1,M2)mod
Air Volume from HiVol Sampling	1	N/A	2024/05/23		

### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Analysis was conducted according to Bureau Veritas' method BRL SOP-00201 and modified where applicable based on the sample matrix. Only the following parameters are accredited: Napthalene, 2-Methylnapthalene, Acenapthylene, Acenapthene, Anthracene, Benzo (a) anthracene, Dibenzo (a,h) anthracene, Fluorene, Benzo (e) pyrene, Benzo (a) pyrene, Benzo (k) fluoranthene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Chrysene, Fluoranthene, Indeno (1,2,3 cd) pyrene. Additional parameters are not Standards Council of Canada accredited for this matrix.



Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: n/a

### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/06/07 Report #: R8181856 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4F4951 Received: 2024/05/23, 10:47

**Encryption Key** 



Bureau Veritas 07 Jun 2024 16:26:41

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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# **RESULTS OF ANALYSES OF PUF AND FILTER**

Bureau Veritas ID		ZGC218				
Sampling Date		2024/05/18				
COC Number		n/a				
	UNITS	STN29164 19-MAY PUF#1	QC Batch			
Volume	m3	325.9	ONSITE			
QC Batch = Quality Control Batch						

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# SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Bureau Veritas ID		ZGC218					
Sampling Date		2024/05/18					
COC Number		n/a					
	UNITS	STN29164 19-MAY PUF#1	RDL	QC Batch			
Benzo(a)pyrene	ug	<0.020 (1)	0.32	9413991			
Surrogate Recovery (%)			•				
D10-2-Methylnaphthalene	%	82		9413991			
D10-Fluoranthene	%	98		9413991			
D10-Fluorene (FS)	%	88		9413991			
D10-Phenanthrene	%	93		9413991			
D12-Benzo(a)anthracene	%	89		9413991			
D12-Benzo(a)pyrene	%	84		9413991			
D12-Benzo(b)fluoranthene	%	94		9413991			
D12-Benzo(ghi)perylene	%	86		9413991			
D12-Benzo(k)fluoranthene	%	85		9413991			
D12-Chrysene	%	87		9413991			
D12-Indeno(1,2,3-cd)pyrene	%	88		9413991			
D12-Perylene	%	85		9413991			
D14-Dibenzo(a,h)anthracene	%	86		9413991			
D14-Terphenyl (FS)	%	86		9413991			
D8-Acenaphthylene	%	97		9413991			
D8-Naphthalene	%	82		9413991			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.							

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# CALCULATED SEMIVOLATILE ORGANICS (PUF AND FILTER)

Bureau Veritas ID		ZGC218					
Sampling Date		2024/05/18					
COC Number		n/a					
	UNITS	STN29164 19-MAY PUF#1	RDL	QC Batch			
Benzo(a)pyrene	ng/m3	<0.98	0.98	9410631			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

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# **GENERAL COMMENTS**

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



## **QUALITY ASSURANCE REPORT**

QA/QC								
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9413991	CTC	Spiked Blank	D10-2-Methylnaphthalene	2024/05/30		58	%	50 - 150
			D10-Fluoranthene	2024/05/30		90	%	50 - 150
			D10-Phenanthrene	2024/05/30		80	%	50 - 150
			D12-Benzo(a)anthracene	2024/05/30		92	%	50 - 150
			D12-Benzo(a)pyrene	2024/05/30		86	%	50 - 150
			D12-Benzo(b)fluoranthene	2024/05/30		92	%	50 - 150
			D12-Benzo(ghi)perylene	2024/05/30		90	%	50 - 150
			D12-Benzo(k)fluoranthene	2024/05/30		92	%	50 - 150
			D12-Chrysene	2024/05/30		92	%	50 - 150
			D12-Indeno(1,2,3-cd)pyrene	2024/05/30		92	%	50 - 150
			D12-Perylene	2024/05/30		92	%	50 - 150
			D14-Dibenzo(a,h)anthracene	2024/05/30		88	%	50 - 150
			D8-Acenaphthylene	2024/05/30		64	%	50 - 150
			D8-Naphthalene	2024/05/30		56	%	50 - 150
			Benzo(a)pyrene	2024/05/30		88	%	50 - 150
9413991	CTC	RPD	Benzo(a)pyrene	2024/05/30	2.9		%	50
9413991	CTC	Method Blank	D10-2-Methylnaphthalene	2024/05/30		54	%	50 - 150
			D10-Fluoranthene	2024/05/30		86	%	50 - 150
			D10-Phenanthrene	2024/05/30		74	%	50 - 150
			D12-Benzo(a)anthracene	2024/05/30		90	%	50 - 150
			D12-Benzo(a)pyrene	2024/05/30		84	%	50 - 150
			D12-Benzo(b)fluoranthene	2024/05/30		90	%	50 - 150
			D12-Benzo(ghi)perylene	2024/05/30		86	%	50 - 150
			D12-Benzo(k)fluoranthene	2024/05/30		88	%	50 - 150
			D12-Chrysene	2024/05/30		88	%	50 - 150
			D12-Indeno(1,2,3-cd)pyrene	2024/05/30		88	%	50 - 150
			D12-Perylene	2024/05/30		88	%	50 - 150
			D14-Dibenzo(a,h)anthracene	2024/05/30		84	%	50 - 150
			D8-Acenaphthylene	2024/05/30		62	%	50 - 150
			D8-Naphthalene	2024/05/30		54	%	50 - 150
			Benzo(a)pyrene	2024/05/30	0.020, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



## VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Angel Guerrero, Supervisor, Ultra Trace Analysis, HRMS and SVOC

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: na

### Attention: Robin Hart

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/06/17 Report #: R8195877 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4G6785 Received: 2024/06/03, 16:34

Sample Matrix: Puf And Filter # Samples Received: 5

		Date	Date		
Analyses	Quantity	/ Extracted	Analyzed	Laboratory Method	Analytical Method
Calculated Polyaromatic Hydrocarbons	5	2024/06/04	2024/06/17	BRL SOP-00201	
PAH's in MM5 SamplingTrains (CARB429mod) (1)	5	2024/06/05	5 2024/06/10	BRL SOP-00201	CARB429(ARBM1,M2)mod
Air Volume from HiVol Sampling	5	N/A	2024/06/04		

### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Analysis was conducted according to Bureau Veritas' method BRL SOP-00201 and modified where applicable based on the sample matrix. Only the following parameters are accredited: Napthalene, 2-Methylnapthalene, Acenapthylene, Acenapthene, Anthracene, Benzo (a) anthracene, Dibenzo (a,h) anthracene, Fluorene, Benzo (e) pyrene, Benzo (a) pyrene, Benzo (k) fluoranthene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Chrysene, Fluoranthene, Indeno (1,2,3 cd) pyrene. Additional parameters are not Standards Council of Canada accredited for this matrix.



Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: na

## **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/06/17 Report #: R8195877 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4G6785 Received: 2024/06/03, 16:34

**Encryption Key** 

Julian Tong Project Manager Assistant 18 Jun 2024 09:54:22

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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## **RESULTS OF ANALYSES OF PUF AND FILTER**

Bureau Veritas ID		ZIQ105	ZIQ106	ZIQ107	ZIQ108	
Sampling Date		2024/05/31	2024/05/31	2024/05/31	2024/05/31	
COC Number		na	na	na	na	
	UNITS	EAST MONITOR PAH MAY30,2024 ZAF-216-01	NORTH MONITOR PAH MAY30,2024 ZAF-217-01	OLD WEST MONITOR PAH MAY30,2024 ZAF-218-01	SOUTH MONITOR PAH MAY30,2024 ZAF-219-01	QC Batch
Volume	m3	325.2	302.4	334.8	301.1	ONSITE
QC Batch = Quality Control	Batch					

Bureau Veritas ID Sampling Date									
COC Number	Number na								
	UNITS	NEW WEST MONITOR PAH MAY30,2024 ZAF-220-01	QC Batch						
Volume	m3	311.6	ONSITE						
QC Batch = Quality Control Batch									

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# SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Bureau Veritas ID		ZIQ105	ZIQ106	ZIQ107	ZIQ108		
Sampling Date		2024/05/31	na na na OID WEST		2024/05/31		
COC Number		na	na	na	na		
	UNITS	EAST MONITOR PAH MAY30,2024 ZAF-216-01	NORTH MONITOR PAH MAY30,2024 ZAF-217-01	OLD WEST MONITOR PAH MAY30,2024 ZAF-218-01	SOUTH MONITOR PAH MAY30,2024 ZAF-219-01	RDL	QC Batch
Semivolatile Organics							
Benzo(a)pyrene	ug	0.620	0.140	2.06	0.540	0.050	9435189
Surrogate Recovery (%)		5	1	1			
D12-Benzo(a)pyrene	%	81	81	80	74		9435189
RDL = Reportable Detection							

QC Batch = Quality Control Batch

Bureau Veritas ID		ZIQ109		
Sampling Date		2024/05/31		
COC Number		na		
	UNITS	NEW WEST MONITOR PAH MAY30,2024 ZAF-220-01	RDL	QC Batch
Semivolatile Organics				
Benzo(a)pyrene	ug	0.800	0.050	9435189
Surrogate Recovery (%)				
D12-Benzo(a)pyrene	%	79		9435189
RDL = Reportable Detection L QC Batch = Quality Control Ba			-	



# CALCULATED SEMIVOLATILE ORGANICS (PUF AND FILTER)

Bureau Veritas ID		ZIQ105		ZIQ106		ZIQ107		
Sampling Date		2024/05/31		2024/05/31		2024/05/31		
COC Number		na		na		na		
	UNITS	EAST MONITOR PAH MAY30,2024 ZAF-216-01	RDL	NORTH MONITOR PAH MAY30,2024 ZAF-217-01	RDL	OLD WEST MONITOR PAH MAY30,2024 ZAF-218-01	RDL	QC Batch
Calculated Parameters								
Benzo(a)pyrene	ug/m3	0.00191	0.00015	0.00046	0.00017	0.00615	0.00015	9432867
RDL = Reportable Detection QC Batch = Quality Contro								

Bureau Veritas ID		ZIQ108		ZIQ109		
Sampling Date		2024/05/31		2024/05/31		
COC Number		na		na		
	UNITS	SOUTH MONITOR PAH MAY30,2024 ZAF-219-01	RDL	NEW WEST MONITOR PAH MAY30,2024 ZAF-220-01	RDL	QC Batch
Calculated Parameters						
Benzo(a)pyrene	ug/m3	0.00179	0.00017	0.00257	0.00016	9432867
RDL = Reportable Detection QC Batch = Quality Control B						



# **GENERAL COMMENTS**

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



## QUALITY ASSURANCE REPORT

QA/QC								
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9435189	CTC	Spiked Blank	D12-Benzo(a)pyrene	2024/06/10		102	%	50 - 150
			Benzo(a)pyrene	2024/06/10		118	%	50 - 150
9435189	CTC	RPD	Benzo(a)pyrene	2024/06/10	8.8		%	50
9435189	СТС	Method Blank	D12-Benzo(a)pyrene	2024/06/10		86	%	50 - 150
			Benzo(a)pyrene	2024/06/10	<0.23 (1)		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

(1) An unusual contamination event was observed in the extraction QCs. Client samples were not affected. Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.



## VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Angel Guerrero, Supervisor, Ultra Trace Analysis, HRMS and SVOC

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Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: n/a

#### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/06/19 Report #: R8198491 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4G7772 Received: 2024/06/04, 10:00

Sample Matrix: Puf And Filter # Samples Received: 1

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Calculated Polyaromatic Hydrocarbons	1	2024/06/04	2024/06/04	BRL SOP-00201	
PAH's in MM5 SamplingTrains (CARB429mod) (1)	1	2024/06/05	2024/06/10	BRL SOP-00201	CARB429(ARBM1,M2)mod
Air Volume from HiVol Sampling	1	N/A	2024/06/04		

### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Analysis was conducted according to Bureau Veritas' method BRL SOP-00201 and modified where applicable based on the sample matrix. Only the following parameters are accredited: Napthalene, 2-Methylnapthalene, Acenapthylene, Acenapthene, Anthracene, Benzo (a) anthracene, Dibenzo (a,h) anthracene, Fluorene, Benzo (e) pyrene, Benzo (a) pyrene, Benzo (k) fluoranthene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Chrysene, Fluoranthene, Indeno (1,2,3 cd) pyrene. Additional parameters are not Standards Council of Canada accredited for this matrix.



Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: n/a

### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/06/19 Report #: R8198491 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4G7772 Received: 2024/06/04, 10:00

**Encryption Key** 



Bureau Veritas 19 Jun 2024 16:08:48

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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# **RESULTS OF ANALYSES OF PUF AND FILTER**

Bureau Veritas ID		ZIV469			
Sampling Date		2024/05/30			
COC Number		n/a			
	UNITS	STN29164 30-MAY PUF#1	QC Batch		
Volume	m3	325.9	ONSITE		
QC Batch = Quality Control Batch					

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# SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Bureau Veritas ID		ZIV469				
Sampling Date		2024/05/30				
COC Number		n/a				
	UNITS	STN29164 30-MAY PUF#1	RDL	QC Batch		
Benzo(a)pyrene	ug	0.080	0.050	9435189		
Surrogate Recovery (%)						
D12-Benzo(a)pyrene	%	79		9435189		
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Page 4 of 8 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



# CALCULATED SEMIVOLATILE ORGANICS (PUF AND FILTER)

Bureau Veritas ID		ZIV469				
Sampling Date		2024/05/30				
COC Number		n/a				
	UNITS	STN29164 30-MAY PUF#1	RDL	QC Batch		
Benzo(a)pyrene	ng/m3	0.25	0.15	9432867		
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

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# **GENERAL COMMENTS**

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



#### QUALITY ASSURANCE REPORT

QA/QC								
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9435189	CTC	Spiked Blank	D12-Benzo(a)pyrene	2024/06/10		102	%	50 - 150
			Benzo(a)pyrene	2024/06/10		118	%	50 - 150
9435189	CTC	RPD	Benzo(a)pyrene	2024/06/10	8.8		%	50
9435189	СТС	Method Blank	D12-Benzo(a)pyrene	2024/06/10		86	%	50 - 150
			Benzo(a)pyrene	2024/06/10	<0.23 (1)		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

(1) An unusual contamination event was observed in the extraction QCs. Client samples were not affected. Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.



### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Angel Guerrero, Supervisor, Ultra Trace Analysis, HRMS and SVOC

Anastassia Hamanov, Scientific Specialist

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Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: NA

#### **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/05/24 Report #: R8161117 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4D9608 Received: 2024/05/09, 16:22

Sample Matrix: Air # Samples Received: 4

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Canister Pressure (TO-15)	4	N/A	2024/05/14	BRL SOP-00304	EPA TO-15 m
Volatile Organics in Air (TO-15) (1)	4	N/A	2024/05/14	BRL SOP-00304	EPA TO-15 m

#### **Remarks:**

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All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO15. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO15 on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Bureau Veritas for a period of 5 calendar days or as contractually agreed from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

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Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: NA

#### **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/05/24 Report #: R8161117 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4D9608 Received: 2024/05/09, 16:22

**Encryption Key** 

Datchus

Cristina (Maria) Bacchus Project Manager 24 May 2024 16:33:59

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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### **RESULTS OF ANALYSES OF AIR**

Bureau Veritas ID		ZCY560	ZCY561	ZCY562	ZCY564				
Sampling Date		2024/04/26	2024/04/26	2024/04/26	2024/04/26				
COC Number		NA	NA	NA	NA				
	UNITS	SOUTH CANISTER VOC MAY 6, 2024/14537	OLD WEST CANISTER VOC MAY 6, 2024/7910	NORTH CANISTER VOC MAY 6, 2024/7825	EAST CANISTER VOC MAY 6, 2024/7909	QC Batch			
Volatile Organics									
Pressure on Receipt	psig	(-3.5)	(-3.6)	(-3.5)	(-5.6)	9393729			
QC Batch = Quality Contro	QC Batch = Quality Control Batch								

Page 3 of 7 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, LSN 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



# **VOLATILE ORGANICS BY GC/MS (AIR)**

Bureau Veritas ID		ZCY560			ZCY561				
Sampling Date		2024/04/26			2024/04/26				
COC Number		NA			NA				
	UNITS	SOUTH CANISTER VOC MAY 6, 2024/14537	ug/m3	DL (ug/m3)	OLD WEST CANISTER VOC MAY 6, 2024/7910	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics									
Benzene	ppbv	21.8	69.5	0.319	6.21	0.10	19.9	0.319	9391785
Surrogate Recovery (%)									
Bromochloromethane	%	89	N/A	N/A	93		N/A	N/A	9391785
D5-Chlorobenzene	%	88	N/A	N/A	91		N/A	N/A	9391785
Difluorobenzene	%	91	N/A	N/A	93		N/A	N/A	9391785
N/A = Not Applicable		ZCY562			ZCY564	1			
Sampling Date COC Number		2024/04/26 NA			2024/04/26 NA				
	UNITS	NA NORTH CANISTER VOC MAY 6, 2024/7825	ug/m3	DL (ug/m3)	EAST CANISTER VOC MAY 6, 2024/7909	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics									
Benzene	ppbv	0.65	2.07	0.319	9.40	0.10	30.0	0.319	9391785
Surrogate Recovery (%)									
Bromochloromethane	%	89	N/A	N/A	91		N/A	N/A	9391785
D5-Chlorobenzene	%	87	N/A	N/A	91		N/A	N/A	9391785
Difluorobenzene	%	90	N/A	N/A	92		N/A	N/A	9391785
RDL = Reportable Detection QC Batch = Quality Control N/A = Not Applicable									



### **GENERAL COMMENTS**

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



### **QUALITY ASSURANCE REPORT**

QA/QC								
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9391785	NS2	Spiked Blank	Bromochloromethane	2024/05/14		103	%	60 - 140
			D5-Chlorobenzene	2024/05/14		103	%	60 - 140
			Difluorobenzene	2024/05/14		105	%	60 - 140
			Benzene	2024/05/14		104	%	70 - 130
9391785	NS2	Method Blank	Bromochloromethane	2024/05/14		109	%	60 - 140
			D5-Chlorobenzene	2024/05/14		104	%	60 - 140
			Difluorobenzene	2024/05/14		112	%	60 - 140
			Benzene	2024/05/14	<0.10		ppbv	

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Helanie Mabri

Melanie Mabini, Team Leader

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Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: NA

#### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/05/21 Report #: R8156954 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4D7003 Received: 2024/05/08, 10:43

Sample Matrix: Air # Samples Received: 1

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Canister Pressure (TO-15)	1	N/A	2024/05/10	BRL SOP-00304	EPA TO-15 m
Volatile Organics in Air (TO-15) (1)	1	N/A	2024/05/10	BRL SOP-00304	EPA TO-15 m

#### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO15. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO15 on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Bureau Veritas for a period of 5 calendar days or as contractually agreed from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

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Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: NA

#### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/05/21 Report #: R8156954 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4D7003 Received: 2024/05/08, 10:43

**Encryption Key** 



Bureau Veritas 21 May 2024 16:04:10

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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### **RESULTS OF ANALYSES OF AIR**

Bureau Veritas ID		ZCK835						
Sampling Date		2024/05/06						
COC Number		NA						
	UNITS	STN29164 06-MAY	QC Batch					
Pressure on Receipt	psig	(-4.5)	9387383					
QC Batch = Quality Control Batch								

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# VOLATILE ORGANICS BY GC/MS (AIR)

Bureau Veritas ID		ZCK835						
Sampling Date		2024/05/06						
COC Number		NA						
	UNITS	STN29164 06-MAY	RDL	ug/m3	DL (ug/m3)	QC Batch		
Benzene	ppbv	0.27	0.10	0.854	0.319	9387384		
Surrogate Recovery (%)								
Bromochloromethane	%	75		N/A	N/A	9387384		
D5-Chlorobenzene	%	73		N/A	N/A	9387384		
Difluorobenzene	%	77		N/A	N/A	9387384		
RDL = Reportable Detection Limit								
QC Batch = Quality Control Ba	atch							
N/A = Not Applicable								

Page 4 of 7 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



### **GENERAL COMMENTS**

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



### **QUALITY ASSURANCE REPORT**

Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limit
9387384	DM2	Spiked Blank	Bromochloromethane	2024/05/10		103	%	60 - 140
			D5-Chlorobenzene	2024/05/10		99	%	60 - 140
			Difluorobenzene	2024/05/10		103	%	60 - 140
			Benzene	2024/05/10		103	%	70 - 130
9387384	DM2	Method Blank	Bromochloromethane	2024/05/10		87	%	60 - 140
			D5-Chlorobenzene	2024/05/10		85	%	60 - 140
			Difluorobenzene	2024/05/10		89	%	60 - 140
			Benzene	2024/05/10	<0.10		ppbv	

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Helanie Mabri

Melanie Mabini, Team Leader

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Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: NA

#### **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/06/05 Report #: R8177739 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4F3307 Received: 2024/05/22, 16:28

# Sample Matrix: Air

# Samples Received: 5

		Date	Date		
Analyses	Quantity	y Extracted	Analyzed	Laboratory Method	Analytical Method
Canister Pressure (TO-15)	5	N/A	2024/05/27	' BRL SOP-00304	EPA TO-15 m
Volatile Organics in Air (TO-15) (1)	5	N/A	2024/05/27	' BRL SOP-00304	EPA TO-15 m

#### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO15. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO15 on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

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Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: NA

#### **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/06/05 Report #: R8177739 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4F3307 Received: 2024/05/22, 16:28

**Encryption Key** 

Datchus

Cristina (Maria) Bacchus Project Manager 05 Jun 2024 16:35:47

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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### **RESULTS OF ANALYSES OF AIR**

Bureau Veritas ID		ZFT831	ZFT832	ZFT833	ZFT834				
Sampling Date		2024/05/21	2024/05/21	2024/05/21	2024/05/21				
COC Number		NA	NA	NA	NA				
	UNITS	EAST CANISTER VOC MAY 18, 2024/14549	NORTH CANISTER VOC MAY 18, 2024/146	OLD WEST CANISTER VOC MAY 18, 2024/32582	SOUTH CANISTER VOC MAY 18, 2024/253	QC Batch			
Volatile Organics									
Pressure on Receipt	psig	(-6.2)	(-4.1)	(-3.6)	(-3.9)	9417736			
QC Batch = Quality Contro	ol Batch								

Bureau Veritas ID		ZFT835						
Sampling Date		2024/05/21						
COC Number		NA						
	UNITS	NEW WEST CANISTER VOC MAY 18, 2024/2763	QC Batch					
Volatile Organics								
Pressure on Receipt	psig	(-2.5)	9417736					
QC Batch = Quality Control Batch								



# VOLATILE ORGANICS BY GC/MS (AIR)

ureau Veritas ID		ZFT831				ZFT832				
ampling Date		2024/05/21				2024/05/21				
OC Number		NA				NA				
	UNITS	EAST CANISTER VOC MAY 18, 2024/14549	RDL	ug/m3	DL (ug/m3)	B) NORTH CANISTER VOC MAY 18, 2024/146		DL ug/m	13 DL (ug/m3	B) QC Bat
olatile Organics				-						
enzene	ppbv	1.58	0.17	5.04	0.543	0.43	0.1	10 1.37	0.319	941518
urrogate Recovery (%)	•									
romochloromethane	%	95		N/A	N/A	97		N/A	N/A	941518
5-Chlorobenzene	%	83		N/A	N/A	86		N/A	N/A	941518
vifluorobenzene	%	93		N/A	N/A	96		N/A	N/A	941518
DL = Reportable Detection Li C Batch = Quality Control Ba I/A = Not Applicable										
C Batch = Quality Control Ba										
C Batch = Quality Control Ba I/A = Not Applicable Bureau Veritas ID		ZFT833				ZFT834				
C Batch = Quality Control Bat I/A = Not Applicable Bureau Veritas ID Sampling Date		2024/05/21				2024/05/21				
C Batch = Quality Control Ba I/A = Not Applicable Bureau Veritas ID		2024/05/21 NA								
C Batch = Quality Control Bat I/A = Not Applicable Bureau Veritas ID Sampling Date		2024/05/21 NA OLD WEST CANISTER VOC		g/m3 D	)L (ug/m3)	2024/05/21	RDL	ug/m3	DL (ug/m3)	QC Batch
C Batch = Quality Control Bat I/A = Not Applicable Bureau Veritas ID Sampling Date		2024/05/21 NA OLD WEST CANISTER VOC MAY 18,	u	g/m3 D	DL (ug/m3)	2024/05/21 NA SOUTH CANISTER VOC MAY 18,	RDL	ug/m3	DL (ug/m3)	QC Batch
C Batch = Quality Control Bat I/A = Not Applicable Bureau Veritas ID Sampling Date COC Number		2024/05/21 NA OLD WEST CANISTER VOC MAY 18, 2024/32582		g/m3 D	0.319	2024/05/21 NA SOUTH CANISTER VOC MAY 18,	RDL	ug/m3		<b>QC Batch</b> 9415184
C Batch = Quality Control Bat J/A = Not Applicable Bureau Veritas ID Sampling Date COC Number Volatile Organics	UNITS	2024/05/21 NA OLD WEST CANISTER VOC MAY 18, 2024/32582				2024/05/21 NA SOUTH CANISTER VOC MAY 18, 2024/253				
C Batch = Quality Control Bat /A = Not Applicable  Bureau Veritas ID Sampling Date COC Number  Volatile Organics Benzene Surrogate Recovery (%) Bromochloromethane	UNITS	2024/05/21 NA OLD WEST CANISTER VOC MAY 18, 2024/32582				2024/05/21 NA SOUTH CANISTER VOC MAY 18, 2024/253				
C Batch = Quality Control Bat /A = Not Applicable Bureau Veritas ID Sampling Date COC Number Volatile Organics Benzene Surrogate Recovery (%)	UNITS	2024/05/21 NA OLD WEST CANISTER VOC MAY 18, 2024/32582 11.2		35.8	0.319	2024/05/21 NA SOUTH CANISTER VOC MAY 18, 2024/253 34.7		111	0.319	9415184



# VOLATILE ORGANICS BY GC/MS (AIR)

Bureau Veritas ID		ZFT835				
Sampling Date		2024/05/21				
COC Number		NA				
	UNITS	NEW WEST CANISTER VOC MAY 18, 2024/2763	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
Benzene	ppbv	1.18	0.10	3.76	0.319	9415184
Surrogate Recovery (%)	<u>-</u>					1
Bromochloromethane	%	96		N/A	N/A	9415184
D5-Chlorobenzene	%	85		N/A	N/A	9415184
Difluorobenzene	%	95		N/A	N/A	9415184
RDL = Reportable Detection L QC Batch = Quality Control Ba N/A = Not Applicable			ł			

Page 5 of 8 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, LSN 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



### **GENERAL COMMENTS**

Sample ZFT831 [EAST CANISTER VOC MAY 18, 2024/14549] : Sample was pressurized due to high vacuum in can. The DL's were adjusted accordingly.

Results relate only to the items tested.

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### **QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limit
9415184	TIM	Spiked Blank	Bromochloromethane	2024/05/27		103	%	60 - 140
			D5-Chlorobenzene	2024/05/27		102	%	60 - 140
			Difluorobenzene	2024/05/27		102	%	60 - 140
			Benzene	2024/05/27		101	%	70 - 130
9415184	TIM	Method Blank	Bromochloromethane	2024/05/27		99	%	60 - 140
			D5-Chlorobenzene	2024/05/27		86	%	60 - 140
			Difluorobenzene	2024/05/27		97	%	60 - 140
			Benzene	2024/05/27	<0.10		ppbv	

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anke Macfarlane, Laboratory Manager, VOC

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: NA

#### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/06/05 Report #: R8177779 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4F4170 Received: 2024/05/23, 10:47

Sample Matrix: Air # Samples Received: 1

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Canister Pressure (TO-15)	1	N/A	2024/05/27	BRL SOP-00304	EPA TO-15 m
Volatile Organics in Air (TO-15) (1)	1	N/A	2024/05/27	BRL SOP-00304	EPA TO-15 m

#### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

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Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

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Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO15. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO15 on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Bureau Veritas for a period of 5 calendar days or as contractually agreed from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Page 1 of 7 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, LSN 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: NA

#### **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/06/05 Report #: R8177779 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4F4170 Received: 2024/05/23, 10:47

**Encryption Key** 



Bureau Veritas 05 Jun 2024 12:30:52

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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### **RESULTS OF ANALYSES OF AIR**

Bureau Veritas ID		ZFY367	
Sampling Date		2024/05/18	
COC Number		NA	
	UNITS	STN29164 12-APR	OC Batch
	00		Q.0 Dato
Pressure on Receipt	psig	(-5.3)	9417623

Page 3 of 7 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, LSN 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



# VOLATILE ORGANICS BY GC/MS (AIR)

Bureau Veritas ID		ZFY367			ZFY367				
Sampling Date		2024/05/18			2024/05/18				
COC Number		NA			NA				
	UNITS	STN29164 12-APR	ug/m3	DL (ug/m3)	STN29164 12-APR Lab-Dup	RDL	ug/m3	DL (ug/m3)	QC Batch
Benzene	ppbv	0.13	0.422	0.319	0.12	0.10	0.396	0.319	9417647
Surrogate Recovery (%)									
Bromochloromethane	%	73	N/A	N/A	72		N/A	N/A	9417647
D5-Chlorobenzene	%	79	N/A	N/A	79		N/A	N/A	9417647
Difluorobenzene	%	77	N/A	N/A	77		N/A	N/A	9417647
RDL = Reportable Detection L QC Batch = Quality Control Ba Lab-Dup = Laboratory Initiate N/A = Not Applicable	atch	cate							



### **GENERAL COMMENTS**

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



### **QUALITY ASSURANCE REPORT**

QA/QC Batch	lus it	QC Type	Parameter	Data Analyzad	Value	Descuent	UNITS	QC Limits
	Init			Date Analyzed	value	Recovery		-
9417647	LSY	Spiked Blank	Bromochloromethane	2024/05/27		107	%	60 - 140
			D5-Chlorobenzene	2024/05/27		106	%	60 - 140
			Difluorobenzene	2024/05/27		107	%	60 - 140
			Benzene	2024/05/27		106	%	70 - 130
9417647	LSY	Method Blank	Bromochloromethane	2024/05/27		95	%	60 - 140
			D5-Chlorobenzene	2024/05/27		91	%	60 - 140
			Difluorobenzene	2024/05/27		99	%	60 - 140
			Benzene	2024/05/27	<0.10		ppbv	
9417647	LSY	RPD [ZFY367-01]	Benzene	2024/05/27	6.3		%	25

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anke Macfarlane, Laboratory Manager, VOC

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Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: NA

#### **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/06/17 Report #: R8194695 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4G6465 Received: 2024/06/03, 15:52

Sample Matrix: Air # Samples Received: 5

		Date	Date		
Analyses	Quantity	/ Extracted	Analyzed	Laboratory Method	Analytical Method
Canister Pressure (TO-15)	5	N/A	2024/06/05	5 BRL SOP-00304	EPA TO-15 m
Volatile Organics in Air (TO-15) (1)	5	N/A	2024/06/05	5 BRL SOP-00304	EPA TO-15 m

#### **Remarks:**

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO15. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO15 on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Bureau Veritas for a period of 5 calendar days or as contractually agreed from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

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Your P.O. #: 4500610028 Your Project #: RAIN CARBON CANADA INC. Your C.O.C. #: NA

#### **Attention: Robin Hart**

RAIN CARBON Canada Inc. 725 Strathearne Ave North Hamilton, ON CANADA L8H 5L3

> Report Date: 2024/06/17 Report #: R8194695 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4G6465 Received: 2024/06/03, 15:52

**Encryption Key** 

Datchus

Cristina (Maria) Bacchus Project Manager 17 Jun 2024 14:25:01

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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### **RESULTS OF ANALYSES OF AIR**

Bureau Veritas ID		ZIO691	ZIO692	ZIO693	ZIO694	
Sampling Date		2024/05/31	2024/05/31	2024/05/31	2024/05/31	
COC Number		NA	NA	NA	NA	
	UNITS	EAST CANISTER VOC MAY 30, 2024/27655	NORTH CANISTER VOC MAY 30, 2024/14252	OLD WEST CANISTER VOC MAY 30, 2024/27695	SOUTH CANISTER VOC MAY 30, 2024/2746	QC Batch
Volatile Organics						
Pressure on Receipt	psig	(-6.1)	(-3.2)	(-3.6)	(-3.9)	9435378
QC Batch = Quality Contro	ol Batch					

Bureau Veritas ID		ZIO695	
Sampling Date		2024/05/31	
COC Number		NA	
	UNITS	NEW WEST CANISTER VOC MAY 30, 2024/23748	QC Batch
Volatile Organics			
Pressure on Receipt	psig	(-2.6)	9435378
QC Batch = Quality Control	Batch		



# VOLATILE ORGANICS BY GC/MS (AIR)

		ZIO691				ZIO692				
ampling Date		2024/05/31				2024/05/31				
OC Number		NA				NA				
	UNITS	EAST CANISTER VOC MAY 30, 2024/27655	RDL	ug/m3	DL (ug/m3)	NORTH CANISTER 13) VOC MAY 30, 2024/14252		DL ug/m	13 DL (ug/m	3) QC Bate
olatile Organics				-						
enzene	ppbv	1.96	0.18	6.26	0.575	0.64	0.1	10 2.04	0.319	943537
urrogate Recovery (%)								•		
romochloromethane	%	81		N/A	N/A	76		N/A	N/A	94353
5-Chlorobenzene	%	75		N/A	N/A	70		N/A	N/A	943537
vifluorobenzene	%	80		N/A	N/A	75		N/A	N/A	943537
Bureau Veritas ID										
Sampling Date COC Number		ZIO693 2024/05/31 NA				ZIO694 2024/05/31 NA				
Sampling Date	UNIT	2024/05/31 NA OLD WEST CANISTER VOC	u	g/m3 D	)L (ug/m3)	2024/05/31	RDL	ug/m3	DL (ug/m3)	QC Batch
Sampling Date	UNIT	2024/05/31 NA OLD WEST CANISTER VOC MAY 30,	u	g/m3 D	)L (ug/m3)	2024/05/31 NA SOUTH CANISTER VOC MAY 30,	RDL	ug/m3	DL (ug/m3)	QC Batch
Sampling Date COC Number		2024/05/31 NA OLD WEST CANISTER VOC MAY 30, 2024/27695		g/m3 D	0.319	2024/05/31 NA SOUTH CANISTER VOC MAY 30,	RDL 0.10	ug/m3	DL (ug/m3)	QC Batch 9435379
Sampling Date COC Number Volatile Organics		2024/05/31 NA OLD WEST CANISTER VOC MAY 30, 2024/27695				2024/05/31 NA SOUTH CANISTER VOC MAY 30, 2024/2746				
Sampling Date COC Number Volatile Organics Benzene		2024/05/31 NA OLD WEST CANISTER VOC MAY 30, 2024/27695				2024/05/31 NA SOUTH CANISTER VOC MAY 30, 2024/2746				
Sampling Date COC Number Volatile Organics Benzene Surrogate Recovery (%)	ppbv	2024/05/31 NA OLD WEST CANISTER VOC MAY 30, 2024/27695 3.78		12.1	0.319	2024/05/31 NA SOUTH CANISTER VOC MAY 30, 2024/2746 24.3		77.7	0.319	9435379



# VOLATILE ORGANICS BY GC/MS (AIR)

Bureau Veritas ID		ZIO695									
Sampling Date		2024/05/31									
COC Number		NA									
	UNITS	NEW WEST CANISTER VOC MAY 30, 2024/23748	RDL	ug/m3	DL (ug/m3)	QC Batch					
Volatile Organics											
Benzene	ppbv	0.83	0.10	2.65	0.319	9435379					
Surrogate Recovery (%)											
Bromochloromethane	%	77		N/A	N/A	9435379					
D5-Chlorobenzene	%	71		N/A	N/A	9435379					
Difluorobenzene	%	78		N/A	N/A	9435379					
Difluorobenzene     %     78     N/A     N/A     943537       RDL = Reportable Detection Limit       QC Batch = Quality Control Batch       N/A = Not Applicable											

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RAIN CARBON Canada Inc. Client Project #: RAIN CARBON CANADA INC. Your P.O. #: 4500610028 Sampler Initials: RH

# **GENERAL COMMENTS**

Sample ZIO691 [EAST CANISTER VOC MAY 30, 2024/27655] : Sample was pressurized due to high vacuum in can. The DL's were adjusted accordingly.

Results relate only to the items tested.

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RAIN CARBON Canada Inc. Client Project #: RAIN CARBON CANADA INC. Your P.O. #: 4500610028 Sampler Initials: RH

## **QUALITY ASSURANCE REPORT**

QA/QC								
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9435379	DM2	Spiked Blank	Bromochloromethane	2024/06/05		119	%	60 - 140
			D5-Chlorobenzene	2024/06/05		116	%	60 - 140
			Difluorobenzene	2024/06/05		118	%	60 - 140
			Benzene	2024/06/05		95	%	70 - 130
9435379	DM2	Method Blank	Bromochloromethane	2024/06/05		90	%	60 - 140
			D5-Chlorobenzene	2024/06/05		85	%	60 - 140
			Difluorobenzene	2024/06/05		90	%	60 - 140
			Benzene	2024/06/05	<0.10		ppbv	

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



RAIN CARBON Canada Inc. Client Project #: RAIN CARBON CANADA INC. Your P.O. #: 4500610028 Sampler Initials: RH

## VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anke Macfarlane, Laboratory Manager, VOC

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Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: NA

## **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/06/17 Report #: R8194697 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

#### BUREAU VERITAS JOB #: C4G6622 Received: 2024/06/04, 10:00

Received. 2024/00/04, 10.0

Sample Matrix: Air # Samples Received: 1

		Date	Date		
Analyses	Quantity	/ Extracted	Analyzed	Laboratory Method	Analytical Method
Canister Pressure (TO-15)	1	N/A	2024/06/05	5 BRL SOP-00304	EPA TO-15 m
Volatile Organics in Air (TO-15) (1)	1	N/A	2024/06/05	5 BRL SOP-00304	EPA TO-15 m

## Remarks:

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

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Your P.O. #: 32669 Your Project #: RAIN CARBON CANADA INC Your C.O.C. #: NA

## **Attention: Ruetgers list**

Rotek Environmental Inc. 15 Keefer Court Hamilton, ON CANADA L8E 4V4

> Report Date: 2024/06/17 Report #: R8194697 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

### BUREAU VERITAS JOB #: C4G6622 Received: 2024/06/04, 10:00

**Encryption Key** 



Bureau Veritas 17 Jun 2024 11:42:47

Please direct all questions regarding this Certificate of Analysis to: Cristina (Maria) Bacchus, Project Manager Email: maria.bacchus@bureauveritas.com Phone# (905)817-5763

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# **RESULTS OF ANALYSES OF AIR**

Bureau Veritas ID		ZIP438	
Sampling Date		2024/05/30	
COC Number		NA	
	UNITS	STN29164 30-MAY/17189	QC Batch
Pressure on Receipt	psig	(-4.0)	9435378
QC Batch = Quality Control Ba	atch		

Page 3 of 7 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, LSN 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



# VOLATILE ORGANICS BY GC/MS (AIR)

Bureau Veritas ID		ZIP438				
Sampling Date		2024/05/30				
COC Number		NA				
	UNITS	STN29164 30-MAY/17189	RDL	ug/m3	DL (ug/m3)	QC Batch
Benzene	ppbv	0.15	0.10	0.488	0.319	9435379
Surrogate Recovery (%)						
Bromochloromethane	%	74		N/A	N/A	9435379
D5-Chlorobenzene	%	67		N/A	N/A	9435379
Difluorobenzene	%	73		N/A	N/A	9435379
RDL = Reportable Detection L	imit					
QC Batch = Quality Control Ba	itch					
N/A = Not Applicable						

Page 4 of 7 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com



# **GENERAL COMMENTS**

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Page 5 of 7 Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



## **QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limit
9435379	DM2	Spiked Blank	Bromochloromethane	2024/06/05		119	%	60 - 140
			D5-Chlorobenzene	2024/06/05		116	%	60 - 140
			Difluorobenzene	2024/06/05		118	%	60 - 140
			Benzene	2024/06/05		95	%	70 - 130
9435379	DM2	Method Blank	Bromochloromethane	2024/06/05		90	%	60 - 140
			D5-Chlorobenzene	2024/06/05		85	%	60 - 140
			Difluorobenzene	2024/06/05		90	%	60 - 140
			Benzene	2024/06/05	<0.10		ppbv	

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



## VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anke Macfarlane, Laboratory Manager, VOC

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June 2024

APPENDIX E

# **Field Notes**



Station : East Location Period Quarter

: 725 Strathearne Avenue N, Hamilton

: April 1 to June 30, 2024

: Q2

Sample Date (dd-mmm-yy)	PUF Cartridge # Maxxam ID#	Maxxam Filter ID #	Installation (Date) (Time EST)	MAGN On	ETI On	MAGN Off	ETI Off	Removal (Date) (Time EST)	Calculated Sample Volume (293.6 - 358.8 m <sup>3</sup> )	Sample Duration (21.6 - 26.4 Hrs)	Technician Initial	Comments
12-Apr-24	PUF #1	YVF771-01	11-Apr-24	36	4445.67	38	4468.67	15-Apr-24	317.8	23.00	RH	
12=Ap1=24	YVF771-01		16:40	50	4445.07	50	4400.07	13:41	517.0	23.00	NIT	
24-Apr-24	PUF #1	YVF932-01	23-Apr-24	38	4468.68	38	4492.01	26-Apr-24	326.5	23.33	RH	
24-Apr-24	YVF932-01	101932-01	18:00	30	4400.00	30	4492.01	12:00	520.5	23.33	КП	
06-Maγ-24	PUF #1	ZAE655-01	03-May-24	38	4492.01	30	4515.42	08-May-24	316.3	23.41	RH	
06-Way-24	ZAE655-01	ZAE655-01	13:00	30	4492.01	30	4515.42	13:15	310.3	23.41	КП	
18-Μaγ-24	PUF #1	ZAF037-01	17-May-24	32	4515.95	30	4538.71	21-May-24	307.4	22.76		Please note that the Magnahelic on pressure was only 32 " water and
10=Way=24	ZAF037-01	ZAP037-01	12:06	32	4515.95	30	4556.71	11:08	507.4	22.70	KH/DW	under the required 38 "water. Service required.
30-May-24	PUF #1	ZAF216-01	29-May-24	38	4538.71	37	4561.94	31-May-24	325.2	23.23	RH/BM	
30-May-24	ZAF216-01	ZAF216-01	12:06	30	4536.71	31	4561.94	09:47	325.2	23.23	KH/BM	



Station Location Period Quarter

: North : 725 Strathearne Avenue N, Hamilton

: April 1 to June 30, 2024

: Q2

	PUF Cartridge # Maxxam ID#	Maxxam Filter ID #	Installation (Date) (Time EST)	MAGN On	ETI On	MAGN Off	ETI Off	Removal (Date) (Time EST)	Calculated Sample Volume (293.6 - 358.8 m <sup>3</sup> )	Sample Duration (21.6 - 26.4 Hrs)	Technician Initial	Comments
12-Apr-24	PUF #2	YVF-772-01	11-Apr-24	36	2674.85	38	2698.26	15-Apr-24	295.0	23.41	RH	Unit ran on Sunday April 7
12=Ap1=24	YVF-772-01	101-772-01	17:10	50	2074.00	50	2090.20	13:55	293.0	23.41	NII	
24-Apr-24	PUF #2	YVF-933-01	23-Apr-24	38	2698.27	38	2721.66	26-Apr-24	303.9	23.39	RH	
24-Api-24	YVF-933-01	101-933-01	18:15	30	2090.27	30	2721.00	12:25	505.9	23.39	КП	
06-May-24	PUF #2	ZAE656-01	03-May-24	38	2721.67	34	2744.97	08-May-24	293.1	23.30	RH	
00=May=24	ZAE656-01	ZAE030-01	13:30	30	2721.07	34	2744.97	13:26	203.1	23.30	ΝΠ	
18-May-24	PUF #2	ZAF038-01	17 <b>-</b> May-24	38	2744.99	38	2768.41	21-May-24	294.4	23.42	RH/BM	
10=May=24	ZAF038-01	ZAI 030-01	12:30	50	2744.55	50	2700.41	11:24	234.4	23.42		
30-May-24	PUF #2	ZAF217-01	29-May-24	38	2768.41	39	2791.69	31-May-24	302.4	23.28	RH/BM	
30=May=24	ZAF217-01	ZAF217-01	12:25	30	2700.41	39	2791.09	09:58	502.4	23.20	KH/DW	



Station : Old West Location : April 1 to June 30, 2024 Period Quarter

: 725 Strathearne Avenue N, Hamilton

: Q2

Sample Date (dd-mmm-yy)	PUF Cartridge # Maxxam ID#	Maxxam Filter ID #	Installation (Date) (Time EST)	MAGN On	ETI On	MAGN Off	ETI Off	Removal (Date) (Time EST)	Calculated Sample Volume (293.6 - 358.8 m <sup>3</sup> )	Sample Duration (21.6 - 26.4 Hrs)	Technician Initial	Comments
12-Apr-24	PUF #3	YVF-773-01	11-Apr-24	38	4331.09	38	4354.75	15-Apr-24	333.0	23.66	RH	
12-Ap1-24	YVF-773-01	111-775-01	18:10	50	4331.09	50	4334.73	16:20	555.0	23.00	NI1	
24-Apr-24	PUF #3	YVF934-01	23-Apr-24	38	4354.75	38	4378.54	26-Apr-24	338.5	23.79	RH	
24-Apr-24	YVF934-01	101934-01	19:20	30	4354.75	30	4378.34	13:45	336.5	23.79	КП	
06-May-24	PUF #3	ZAE657-01	03-May-24	38	4378.54	36	4402.35	09-May-24	334.7	23.81	RH	
00=Way=24	ZAE657-01	ZAE037-01	17:30	30	4370.34	30	4402.35	13:20	554.7	23.01	КП	
18-May-24	PUF #3	ZAF039-01	17-May-24	24	4402.38	22	4426.08	21-May-24	332.9	23.70	RH/BM	Please note that the Magnahelic on pressure was only 24 " water
10=Way=24	ZAF039-01	241 035-01	13:20	24	4402.50	22	4420.00	12:10	552.5	25.70		and under the required 38 "water. Service required.
30-May-24	PUF #3	ZAF218-01	29-May-24	38	4426.08	37	4449.79	31-May-24	334.8	23.71	RH/BM	
50-Way-24	ZAF218-01	2A1210-01	13:30	50	4420.00	57	4445.75	10:42	554.0	20.71		



Station Location Period

: South : 725 Strathearne Avenue N, Hamilton

Period : April 1 to June 30, 2024 Quarter : Q2

Sample Date (dd-mmm-yy)	PUF Cartridge # Maxxam ID#	Maxxam Filter ID #	Installation (Date) (Time EST)	MAGN On	ETI On	MAGN Off	ETI Off	Removal (Date) (Time EST)	Calculated Sample Volume (293.6 - 358.8 m <sup>3</sup> )	Sample Duration (21.6 - 26.4 Hrs)	Technician Initial	Comments
12-Apr-24	PUF #4	YVF-774-01	11-Apr-24	36	4229.99	38	4252.89	15-Apr-24	312.8	22.90	RH	
12-Ap1-24	YVF-774-01	1 11 -774-01	17:35	30	4225.55	50	4232.09	15:20	512.0	22.90	NII	
24-Apr-24	PUF #4	YVF935-01	23-Apr-24	38	4252.89	38	4275.82	26-Apr-24	322.9	22.93	RH	
24-Api-24	YVF935-01	101933-01	18:30	30	4202.09	30	4273.02	12:45	522.9	22.93	КП	
06-May-24	PUF #4	ZAE658-01	03-May-24	38	4275.83	32	4298.75	08-May-24	308.8	22.92	RH	
00=May=24	ZAE658-01	ZAE030-01	13:55	30	4275.85	52	4290.75	13:45	506.6	22.92	КП	
18-May-24	PUF #4	ZAF040-01	17-May-24	24	4298.79	26	4321.68	21-May-24	308.2	22.89	RH/BM	Please note that the Magnahelic on pressure was only 24 " water and
10=Way=24	ZAF040-01	ZAP040-01	12:58	24	4290.79	20	4321.00	11:40	506.2	22.09	KH/DW	under the required 38 "water. Service required.
30-May-24	PUF #4	ZAF219-01	29 <b>-</b> May-24	32	4321.68	34	4344.60	31-May-24	301.1	22.92	RH/BM	
30-May-24	ZAF219-01	ZAF219-01	12:44	52	4321.00	34	4344.00	10:15	301.1	22.92	KH/DW	



Station: New WestLocation: 725 StrathePeriod: April 1 to JunQuarter: Q2

: 725 Strathearne Avenue N, Hamilton

: April 1 to June 30, 2024

Sample Date (dd-mmm-yy)	PUF Cartridge # Maxxam ID#	Maxxam Filter ID #	Installation (Date) (Time EST)	MAGN On	ETI On	MAGN Off	ETI Off	Removal (Date) (Time EST)	Calculated Sample Volume (293.6 - 358.8 m <sup>3</sup> )	Sample Duration (21.6 - 26.4 Hrs)	Technician Initial	Comments
12-Apr-24	PUF #5	YVF-775-01	11-Apr-24	36	4020.35	38	4043.89	15-Apr-24	306.0	23.54	RH	
12-Ap1-24	YVF-775-01	101-775-01	17:50	30	4020.33	50	4043.09	15:47	500.0	23.34	NII	
24-Apr-24	PUF #5	YVF986-01	23-Apr-24	38	4043.89	38	4067.48	26-Apr-24	317.3	23.59	RH	
24-Apr-24	YVF986-01	101900-01	19:10	30	4043.89	30	4007.40	13:10	517.5	23.39	КП	
06-May-24	PUF #5	ZAE659-01	03-May-24	38	4067.48	35	4090.95	09-May-24	306.5	23.47	RH	
06-way-24	ZAE659-01	ZAE059-01	14:15	30	4067.46	35	4090.95	12:54	306.5	23.47	КП	
18-Μaγ-24	PUF #5	ZAF041-01	17-May-24	20	4090.96	37	4114.62	21-May-24	308.7	23.66	RH/BM	
10=Way=24	ZAF041-01	ZAF041-01	13:15	38	4000.00	51	4114.02	12:00	506.7	23.00	KH/DIVI	
30-May-24	PUF #5	ZAF220-01	29-May-24	38	4114.62	37	4138.17	31-May-24	311.6	23,55	RH/BM	
30-way-24	ZAF220-01	ZAF220-01	13:12	30	4114.02	51	4136.17	10:29	311.0	23.55	KH/DIVI	



 Station
 : East

 Location
 : 725 Strathearne Avenue N, Hamilton

Period : April 1 to June 30, 2024

Quarter : Q2

Leak Removal Average On/Off Sample Flow (3.15 - 3.85 mL/Min) Installation On Off Sample Duration Technician Pressure (As (21.6 - 26.4 Hrs) Initial Left) (As Sample Date (dd-mmm-yy) VOC ID On Flow Off Flow (Date) (Time EST) (Date) (Time EST) Pressure ("Hg) Pressure Comments Canister # (mL/min) (mL/min) Left) (As Found) ("Hg) 11-Apr-24 15-Apr-24 12-Apr-24 2575 -----30.0 -----12.0 ----24.0 RH 16:50 13:45 23-Apr-24 26-Apr-24 24-Apr-24 2790 -----30.0 -----10.0 ----24.0 RH 18:10 12:05 03-May-24 08-May-24 06-May-24 14537 24.0 RH -----30.0 -----12.0 ----13:10 13:15 17-May-24 21-May-24 18-May-24 14549 ----RH/BM -----30.0 -14.0 ----24.0 12:07 11:10 29-May-24 31-May-24 30-May-24 27655 -30.0 -----14.5 24.0 RH/BM --------12:14 09:50



Station : North

Location : 725 Strathearne Avenue N, Hamilton

Period : April 1 to June 30, 2024

VOC - Station Logs **RAIN CARBON INC.** Quarter : Q2 Leak Removal Average On/Off Sample Flow (3.15 - 3.85 mL/Min) Installation On Off Sample Duration Technician Pressure (As (21.6 - 26.4 Hrs) Initial Left) (As Sample Date (dd-mmm-yy) VOC ID On Flow Off Flow (Date) (Time EST) (Date) (Time EST) Pressure Comments Pressure Canister # (mL/min) (mL/min) Left) (As Found) ("Hg) ("Hg) 11-Apr-24 15-Apr-24 12-Apr-24 7816 -----30.0 -----9.0 ----24.0 RH 17:10 14:00 23-Apr-24 26-Apr-24 -9.0 24-Apr-24 129 -----30.0 --------24.0 RH 18:20 12:30 03-May-24 08-May-24 06-May-24 7910 -8.0 24.0 RH -----30.0 --------13:45 13:30 17-May-24 21-May-24 18-May-24 -9.5 RH/BM 146 -----30.0 --------24.0 12:40 11:27 29-May-24 31-May-24 30-May-24 14252 -30.0 -----9.0 24.0 RH/BM --------12:26 10:01



 Station
 : Old West

 Location
 : 725 Strathearne Avenue N, Hamilton

on : 725 Strathearne Avenue N, Ha

 Period
 : April 1 to June 30, 2024

 Quarter
 : Q2

Leak Removal Average On/Off Sample Flow (3.15 - 3.85 mL/Min) Installation On Off Sample Duration Technician Pressure (As (21.6 - 26.4 Hrs) Initial Left) (As Sample Date (dd-mmm-yy) Off Flow VOC ID On Flow (Date) (Time EST) (Date) (Time EST) Pressure ("Hg) Pressure Comments Canister # (mL/min) (mL/min) Left) (As Found) ("Hg) 11-Apr-24 15-Apr-24 12-Apr-24 1259 -----29.0 -----7.5 ----24.0 RH 18:15 16:25 23-Apr-24 26-Apr-24 10325 24-Apr-24 -----29.0 -----8.0 ----24.0 RH 19:20 14:00 03-May-24 09-May-24 06-May-24 7825 -8.5 24.0 RH -----30.0 --------17:40 13:10 17-May-24 21-May-24 18-May-24 32582 -----8.0 RH/BM -----30.0 ----24.0 13:40 12:15 29-May-24 31-May-24 30-May-24 27695 -30.0 -----9.0 24.0 RH/BM --------13:33 10:46



Station : South

Location : 725 Strathearne Avenue N, Hamilton Period : April 1 to June 30, 2024 Quarter : Q2

Sample Date (dd-mmm-yy)	VOC ID Canister #	Installation (Date) (Time EST)	On Flow (mL/min)	On Pressure ("Hg)	Off Flow (mL/min)	Off Pressure ("Hg)	Removal (Date) (Time EST)	Average On/Off Sample Flow (3.15 - 3.85 mL/Min)	Sample Duration (21.6 - 26.4 Hrs)	Technician Initial	Leak Pressure (As Left) (As Found)	Comments
12-Apr-24	2777	11-Apr-24		-30.0		-8.0	15-Apr-24		24.0	RH		
12 <b>-</b> Api-24	2111	17:40		-30.0	-	-0.0	15:20		24.0	КП		
24-Apr-24	14049	23-Apr-24		-30.0		-8.5	26-Apr-24		24.0	RH		
24-741-24	14040	18:45		-00.0		-0.0	12:50		24.0			
06-May-24	17189	03-May-24		-29.0		-8.0	08-May-24		24.0	RH		
00 may 24		14:05					13:55					
18-May-24	253	17 <b>-</b> May-24		-28.0		-8.5	21-May-24		24.0	RH/BM		
	200	13:05					11:45					
30-May-24	2746	29-May-24		-29.0		-9.5	31-May-24		24.0	RH/BM		
00 may 24	2140	12:46		20.0		0.0	10:20		24.0	T T D M		



Station : New West

Location : 725 Strathearne Avenue N, Hamilton Period : April 1 to June 30, 2024 Quarter : Q2

Sample Date (dd-mmm-yy)	VOC ID Canister #	Installation (Date) (Time EST)	On Flow (mL/min)	On Pressure ("Hg)	Off Flow (mL/min)	Off Pressure ("Hg)	Removal (Date) (Time EST)	Average On/Off Sample Flow (3.15 - 3.85 mL/Min)	Sample Duration (21.6 - 26.4 Hrs)	Technician Initial	Leak Pressure (As Left) (As Found)	Comments
12-Apr-24	2801	11-Apr-24		-29.0		29.0	15-Apr-24		24.0	RH		VOC sampler timer valve did not open. Sampler rerun on Tuesday
12-741-24	2001	18:00		-23.0		23.0	15:50		24.0			April 16, 2024.
16-Apr-24	2801	15-Apr-24		-29.0	_	-9.0	17-Apr-24		24.0	RH		Successful sample. Previous sample did not have "active" light
10-401-24	2001	16:00		-23.0		-3.0	15:20		24.0			displayed.
24-Apr-24	2809	23-Apr-24		-29.0		-8.5	26-Apr-24		24.0	RH		
24 <del>-94</del> 01-24	2009	19:10		-29.0		-6.5	13:20		24.0	КП		
06-May-24	7909	03-May-24		-28.0		-28.0	09-May-24	_	24.0	RH		VOC sampler timer failure due to susoected line blockage inside the
00=way=24	7909	14:30		-20.0		-20.0	13:00		24.0	NI1		unit. Internal valve can be toggled open and close in manual mode.
18-May-24	2763	17 <b>-</b> May-24		-29.0		-5.0	21-May-24		24.0	RH/BM		VOC sampler timer failure as the internal valve cannot be toggled open and closed in manual mode. Therefore a temporary
10-may-24	2703	13:30		-23.0		-5.0	12:05		24.0			replacement VOC sampler installed.
30-May-24	23748	29-May-24		-29.0		-5.0	31-May-24		24.0	RH/BM		
30-way-24	23746	13:15		-29.0		-5.0	10:38		24.0	RH/BW		