REPORT

October 2025 B(a)P Sampling Results Above Measured Level Report

Rain Carbon Canada Inc.

Submitted by:

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1.0 INTRODUCTION

The ambient air monitoring measurements for October 2025 follow the **December 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.**

As required by the Plan, Rain completed three monitoring events in the month of October 2025 (October 4, 16, and 28) and submitted a monthly summary report to the MECP entitled “October 2025 Ambient Air Monitoring Report” (the AAMR).

As presented in the October 2025 AAMR, there was one B(a)P concentration recorded above the 0.0043 µg/m³ Measured Level threshold which triggered the preparation of this report, as set out in the **ECA #7313-8KEN49 Notice No.1 issued November 17, 2022.**

This report includes information on the causes and prevention of future concentrations above the Measured Level threshold. Where possible, this report will include the following items as per the **ECA #7313-8KEN49 Notice No.1 issued November 17, 2022.**

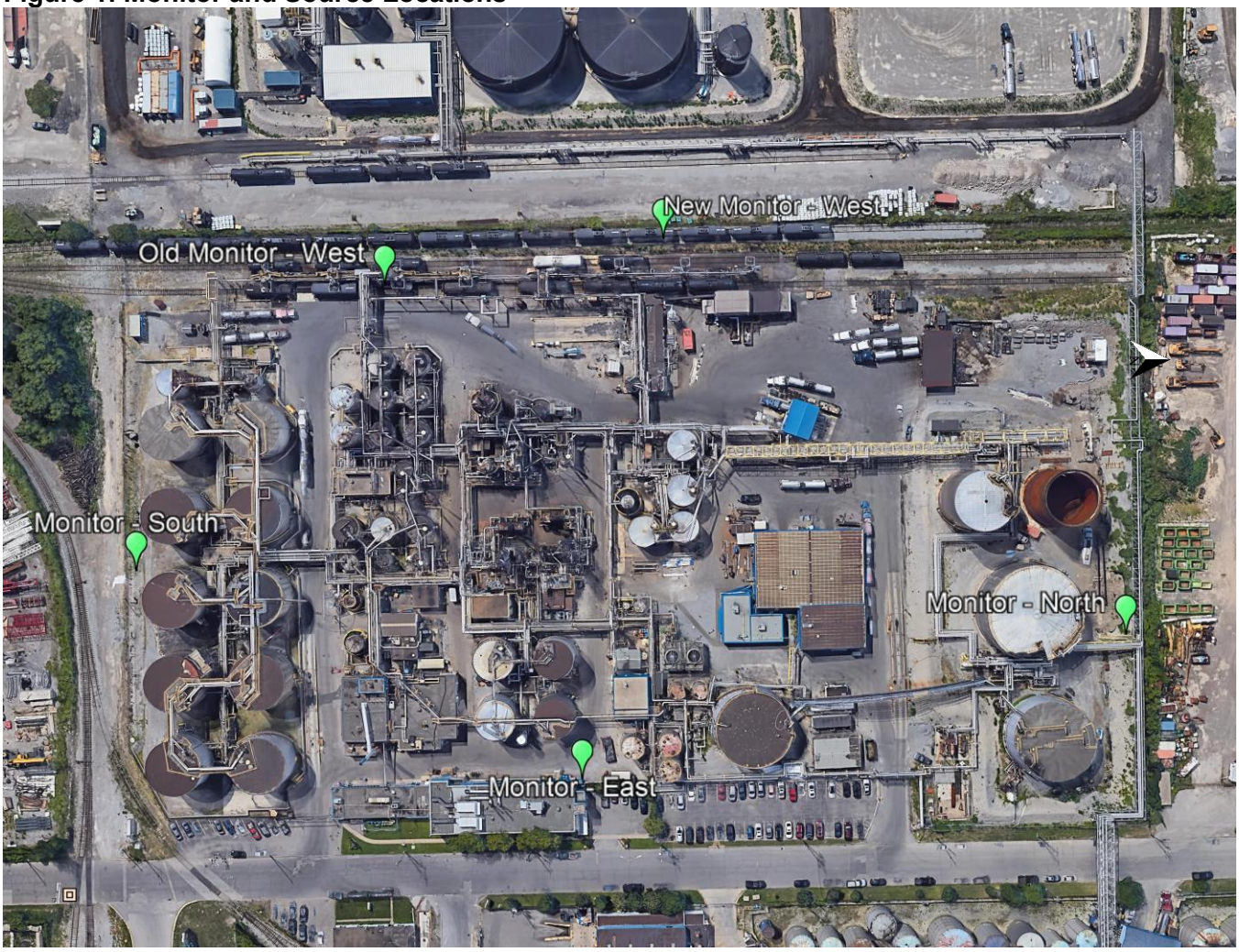
An analysis of what may have caused the B(a)P concentration to be above the Measured Level Threshold.

- Production rate(s) at the time measuring B(a)P concentrations to be above the Measured Level Threshold.
- An assessment of additional equipment, technically feasible methods and operational measures that are available to further minimize the likelihood of measurements above the Measured Level Threshold; and
- A proposed schedule to implement any actions that would minimize the likelihood of measurements above the Measured Level Threshold.

2.0 B(A)P MONITORING

The monitoring program for B(a)P consists of setting up a polyurethane foam (PUF) polyaromatic hydrocarbon (PAH) sampling system at five locations at the Facility, as presented in Figure 1 and also at the HAMN Station 29164. Samples were collected over a 24-hour period. Air quality data acquisition and instrument performance were evaluated by Rain Carbon Canada Inc. personnel. The laboratory analysis was conducted by Bureau Veritas Laboratories, which is ISO17025 compliant and accredited.

Figure 1: Monitor and Source Locations



The B(a)P measurements ranged from < 0.00030 µg/m³ to **0.00536 µg/m³**.

The MECP included a Measured Level threshold as a trigger to evaluate progress on B(a)P emission reduction. This level set by the MECP is not directly related to the ESDM Report results. One of the B(a)P concentrations measured on **October 28, 2025**, **was above the 0.00430 µg/m³ Measured Level threshold** which triggered the preparation of this report, as set out in the ECA #7313-8KEN49 Notice No.1 issued November 17, 2022, and the measurement was also **above the 0.00500 µg/m³ B(a)P Upper Risk Threshold (URT)**.

Table 1: Summary of October 2025 B(a)P Measurements.

Monitoring Event Date		Measured Concentration [µg/m³]				
	East	North	Old West	South	New West	HAMN STN 29164
October 4	0.00042	0.00032	0.00070	< 0.00031	0.00090	< 0.00031
October 16	0.00037	< 0.00031	0.00086	0.00039	0.00096	< 0.00030
October 28	< 0.00031	< 0.00031	0.00148	0.00046	**0.00536**	< 0.00031

2.1 Facility Conditions During Monitoring

The Facility was undergoing normal operations during the October 28, 2025, monitoring event. Table 2 summarizes the daily vehicle loading activity at the Facility during the October 28, 2025, monitoring event at the sources previously identified as the main contributors to B(a)P emissions.

Table 2: Summary of Facility Activities on October 28, 2025, Sampling Date

Monitoring Event	Area	Modelling Source ID	Daily Vehicle Loading [US gal]				
			Pitch	Creosote	Naphthalene Oil	LPSB	RT-12
October 28, 2025	Railcar Loading	LS3	33,090	55,624	0	0	0
	Truck Loading	LS2	0	0	0	0	0
	Truck Loading	LS4	77,230	0	0	0	0

The daily vehicle loading data is based on information derived from the Systems, Application and Products (SAP) Enterprise Resource Planning software system which tracks the amount of material loaded into trailers and rail cars in kilograms. This data was converted to US gallons, representing the amount of material loaded during the monitoring event (i.e., daily amount loaded). This daily loading data allows for a better representation of Facility conditions during the 24-hour monitoring events.

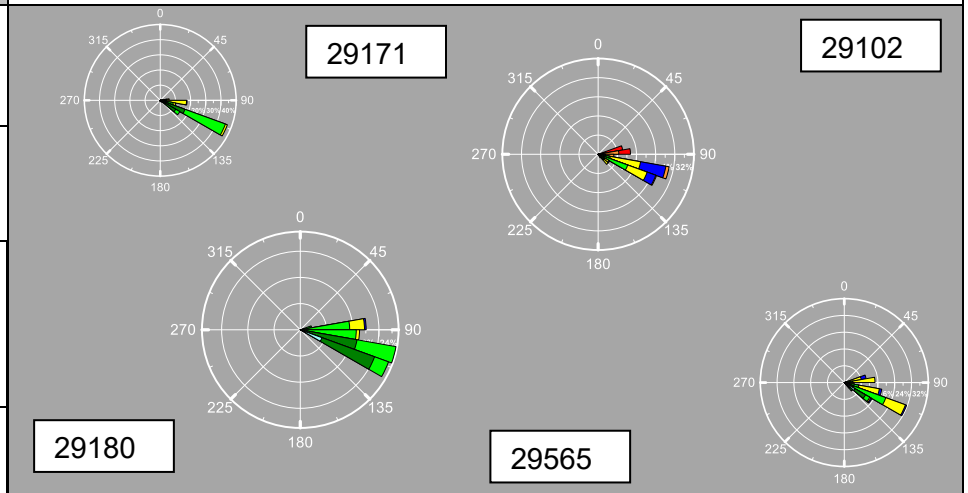
The monitoring and control of loading volumes is part of Standard Operation Procedures (SOPS) for material loading.

3.0 MONITORING RESULTS AND ANALYSIS

At this time, a general correlation between Facility operations and measured concentrations cannot be identified. Although the monitors are located within the Facility's property, their measurements are likely impacted by emissions from other industrial facilities and transportation sources in the vicinity.

Table 3 summarizes October 28, 2025, monitoring results and wind conditions and facility loading operations. The analysis of the results is presented below Table 3.

Table 3: Summary of Wind Conditions, Facility Operations and Measured B(a)P Concentrations during October 28, 2025

	HAMN Station	Wind Direction & Strength	Overall
	29171	E, ESE (Moderate, Strong)	
	29102	ENE, E, ESE (Moderate, Strong)	
	29180	ENE, E, ESE (Moderate, Strong)	
	29565	E, ESE, SE (Moderate, Strong)	

	Facility Area	Modelling Source ID	Daily Total Amount Loaded [US gal]				
			Pitch	Creosote	Naphthalene Oil	LPSB	RT-12
Facility Operations	Railcar Loading	LS3 (close to Old West and New West Monitors)	33,090	55,624	0	0	0
	Truck Loading	LS2 (close to Old West Monitor)	0	0	0	0	0
	Truck Loading	LS4 (close to New West Monitor)	77,230	0	0	0	0

Measured Concentrations [µg/m³]	East Monitor	North Monitor	Old West Monitor / New West Monitor	South Monitor/STN29164
	< 0.00031	< 0.00031	0.00148 / **0.00536**	0.00046 / < 0.00031

October 28, 2025, monitoring event:

The **Tuesday, October 28, 2025,** Hamilton site wind direction was from general **easterly, east southeasterly and south easterly** directions over the course of the day. This information is summarized in the table below.

Monitoring Event	October 28, 2025
Wind Strength	**Calm | Moderate | Strong**
Main Wind Direction	**E, ESE, SE**

The loading activities during October 28, 2025, monitoring event are summarized in the table below.

Monitoring Event	October 28, 2025
Total Volume Loaded from Rail Car Loading LS3 [US gal]	88,714
Total Volume Loaded from Truck Loading LS2 Spot 1 [US gal]	0
Total Volume Loaded from Truck Loading LS4 Spot 7 [US gal]	77,230

During October 28, 2025, the monitoring event the railcar loading activity was for 33,090 US gal of coal tar pitch and 55,624 US gal of creosote.

The truck loading LS4 (Spot 7) activity was for 77,230 US gal of coal tar pitch only There was no truck loading at LS2 (Spot 1).

New West Monitor Measurement on October 28, 2025

The **0.00536 µg/m³ B(a)P measurement at the new west monitor on the October 28, 2025, monitoring event** was above the 0.00430 µg/m³ Measured Level threshold and above the 24-hour upper risk threshold (URT) of 0.005 µg/m³ B(a)P. This was determined, statistically, to be a special cause variation event with one specific likely assignable cause.

However, we were not able to determine with certainty the root cause of the **0.00536 µg/m³** B(a)P measurement at the new west monitor on the October 28, 2025, MECP monitoring event.

4. CONCLUSION

This report was prepared to fulfill the requirements of the **ECA #7313-8KEN49 Notice No.1 issued November 17, 2022.**

Table 6: Conclusions

	Conclusions
Analysis of what may have caused the B(a)P concentration to be above the Measured Level Threshold.	The **0.00536 µg/m³ B(a)P measurement at the new west monitor on the October 28, 2025, monitoring event** was above the 0.00430 µg/m³ Measured Level threshold and above the 24-hour upper risk threshold (URT) of 0.005 µg/m³ B(a)P. This was determined, statistically, to be a special cause variation event with one specific likely assignable cause. However, we were not able to determine with certainty the root cause of the **0.00536 µg/m³** B(a)P measurement at the new west monitor on the October 28, 2025, MECP monitoring event. A “yellow” creosote railcar loading audit at LS3 and a “green” coal tar pitch truck/trailer loading audit at LS4 were conducted on the Wednesday October 28, 2025, monitoring event.
Loading volumes(s) in US gal at the time measuring B(a)P concentrations to be above the Measured Level threshold.	Details on loading volumes (US gal) are presented in Section 2.0 of this report.
Assessment of additional equipment, technically feasible methods and operational measures that are available to further minimize the likelihood of measurements above the Measured Level threshold and the proposed schedule to implement any actions that would minimize the likelihood of measurements above the Measured Level threshold.	Rain will continue conducting vehicle loading audits on each monitoring day to continue assessing the operations of loading equipment and operators’ implementation of Standard Operating Procedures. Rain Carbon’s Abatement Plan includes installation of fully enclosed automated railcar loading in Q3 2026.

Signature Page

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