

March 28, 2024

Alberta Environment and Protected Areas (EPA) Monitoring Branch 11th Floor Oxbridge Place 9820-106 Street Edmonton, Alberta T5K 2J6

RE: Monthly Ambient Air Monitoring Report February 2024 Clean Harbors Canada, Inc. Approval 10348-03-01

To whom it may concern:

Clean Harbors Canada, Inc. (Clean Harbors) is presenting this Monthly Ambient Air Monitoring Report, which was prepared by GHD Limited (Consultant), for the reporting period of February 2024, to Alberta Environment and Protected Areas (EPA). The Clean Harbors Ryley Industrial Waste Management Facility (Facility) is located in SE 09-050-17 W4M near Ryley, Alberta.

This ambient air monitoring program is conducted in accordance with the requirements outlined in the facility's amended Environmental Protection and Enhancement Act (EPEA) Approval, Approval No. 10348-03-01 (Approval). Clean Harbors' original Ambient Air Monitoring Program for Approval No. 10348-03-00 was initially approved on June 24, 2009. As part of the amended Approval requirements, the Facility submitted an Enhanced Ambient Air Quality Monitoring Program to Alberta EPA on September 14, 2022 (no formal approval has been provided by Alberta EPA). Operating under the Approval and the submitted program, Clean Harbors operates the following ambient air monitoring stations:

- Wind
 - Facility Meteorological Station EPA Station ID 00010348-C-1
 - Facility Site Station EPA Station ID 00010348-C-2
 - Ryley School Station EPA Station ID 00010348-C-3
- TSP
 - Facility Site Station EPA Station ID 00010348-I-2
 - Ryley School Station EPA Station ID 00010348-I-3
 - Highway 854 Lift Station EPA Station ID 00010348-I-1
- PM₁₀
 - Highway 854 Lift Station EPA Station ID 00010348-I-1

Included in this report are the following:

- Summary of the ambient air monitoring program for February 2024
- Summary of AMD Electronic Transfer System submittals
- Results for Total Suspended Particulate Matter (TSP) reported in µg/m³
- Results for Particulate Matter < 10 microns (PM₁₀) reported in μg/m³
- Results for metals if the TSP or PM₁₀ results were >50 µg/m³



- Results for Total Non-Methane Organic Compounds (TNMOC) and Volatile Organic Compounds (VOC)
- Wind frequency distribution tables, wind rose and monthly uptime

Should there be any questions and comments regarding this report, please do not hesitate to contact the undersigned.

Yours truly,

CLEAN HARBORS CANADA INC.

Stan Yuha

Stan Yuha Facility Manager

Ryley Facility



Alberta Environment and Protected Areas (EPA) Monthly Ambient Air Monitoring Report February 2024 Report Completed on March 28, 2024

Clean Harbors Environmental Services Inc. Approval Number: 10348-03-01 Ryley Facility, Alberta

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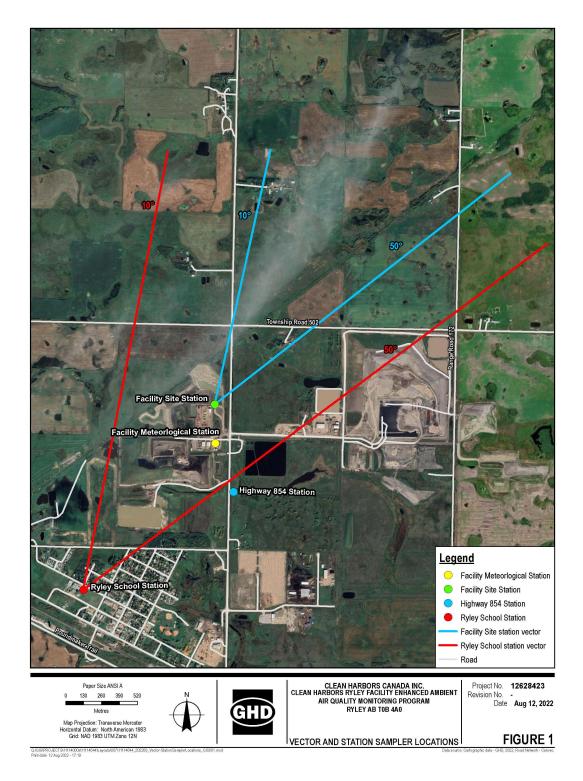
Figure 1 Vector and Sampler Station Locations

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- Appendix A Meteorological Station Calibration Reports
- Appendix B Sampling Field Sheets
- Appendix C Wind Class Frequency Distribution Graphs and Wind Rose
- Appendix D Chain of Custody Forms and Laboratory Analytical Reports

1. Introduction

The Facility operates the following ambient air monitoring stations to assess ambient air quality at and around the Facility as shown in Figure 1.



- Upwind intermittent ambient air quality monitoring station, known as the Facility Site Station (EPA Station ID 00010348-I-2), located at 50114 Range Road 173, Ryley, Alberta (53°18'13.11"N and 112°25'5.81"W). At this location, a Tisch TE-5170V VFC High Volume TSP Sampler (TSP Hi-Vol Sampler) is located against the Facility perimeter fence, north of the vehicle staging road.
- Downwind intermittent ambient air quality monitoring station, known as the Ryley School Station (EPA Station ID 00010348-I-3), located at 5211 52 Avenue, Ryley, Alberta (53°17'28.99"N and 112°25'55.81"W). At this location, a TSP Hi-Vol Sampler is located on the roof of the Ryley School.

For these two locations, samples are collected and analyzed for the following: total suspended particulate matter (TSP) (typically with diameter less than 35 microns (μ m)). Additionally, TSP samples that exceed 50 micrograms per cubic metre (50 μ g/m³) are analyzed for a target list of metals. The samplers are programmed to run for approximately 24-hours. All samples are collected for a total of 24-hours by intermittent sampling when the wind speed is greater than 5 km/hr and wind direction is blowing from the northeast towards the southwest.

- 3. Intermittent monitoring station, known as the Highway 854 Lift Station (EPA Station ID 00010348-I-1), located on Secondary Road 854, approximately 350 metres southeast of the Facility (Latitude: 53°17'52.66"N, Longitude: 112°24'57.87"W). At this location, a TSP Hi-Vol Sampler and a Partisol FRM 2000 PM₁₀ Sampler (PM₁₀ Sampler) will be located on the roof of the lift station. Samples are collected and analyzed for the following: TSP, particulate matter less than or equal to 10 µm in diameter (PM₁₀), volatile organic compounds (VOCs), and total non-methane organic compounds (TNMOC). Additionally, TSP or PM₁₀ samples that exceed 50 µg/m³ are analyzed for a target list of metals. Sampling is conducted once every 6-days for a 24-hour sampling period (midnight to midnight) as required by the Facility's Approval. The 6-day sampling frequency will be in alignment with the Government of Canada, National Air Pollution Surveillance Program Canada.ca). To correlate PM₁₀ data with TSP data, Clean Harbors will continue PM₁₀ sampling at the station for a two-year period.
- 4. Continuous meteorological stations that collect wind speed and wind direction data are also located at the Facility Meteorological Station (EPA Station ID 00010348-C-1), Upwind Facility Site Station (EPA Station ID 00010348-C-2), and Downwind Ryley School Station (EPA Station ID 00010348-C-3). The anemometer equipment used to measure this data includes three R. M. Young 05305-10A Wind Monitor-Aqs.

All sampling and monitoring is conducted in accordance with the Facility's amended Approval (Approval No. 10348-03-01), the Alberta Air Monitoring Directive, 2016 (AMD), and in accordance with the following EPA standards:

- The Alberta Stack Sampling Code, Alberta Environment, 1995, as amended
- The Methods Manual for Chemical Analysis of Atmospheric Pollutants, Alberta Environment, 1993, as amended
- The Air Monitoring Directive, Alberta Environment, 1989, as amended

1.1 Contact Information

As required by AMD Chapter 9, Section 2, contact information is provided for the following Facility personnel and Contractors that assisted with the performance of the Facility's Air Monitoring Program.

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Responsibilities	Station Field Operator and Field Sampler
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2. Summary of Ambient Air Monitoring Activities

The following ambient air monitoring activities were conducted during the month of February 2024.

Activity	Completed (Y/N)	Date(s)
Wind – Fa	cility Meteorolo	gical Station
Wind Speed/Direction Sensor Calibration	N	June 30, 2023 ⁽¹⁾
Changes to the Wind Speed/Direction Sensor	N	-
Wind	- Facility Site	Station
Wind Speed/Direction Sensor Calibration	N	Anemometer Error ⁽²⁾
Changes to the Wind Speed/Direction Sensor	N	-
	- Ryley School	Station
Wind Speed/Direction Sensor Calibration	N	June 30, 2023
Changes to the Wind Speed/Direction Sensor	N	-
	- Facility Site S	Station
TSP Hi-Vol Sampler Calibration	N	December 13, 2023
Changes to the TSP Hi-Vol Sampler	N	-
TSP Samples Collected	Y	February 1, 2024 – March 1, 2024
TSP Metal Analysis Conducted	Y	February 1, 2024 – March 1, 2024
TSP Sampler Maintenance Activities	Y	February 1, 2024
TSP	– Ryley School	Station
TSP Hi-Vol Sampler Calibration	N	December 13, 2023
Changes to the TSP Hi-Vol Sampler	N	-
TSP Samples Collected	Y	February 1, 2024 – March 1, 2024
TSP Metal Analysis Conducted	Y	February 1, 2024 – March 1, 2024
TSP Sampler Maintenance Activities	Y	February 1, 2024
	d TNMOC – Hig	hway 854 Lift Station
TSP Hi-Vol Sampler Calibration		December 13, 2023
PM ₁₀ Sampler Calibration	N	December 13, 2023
Changes to the TSP Hi-Vol Sampler	N	-
Changes to the PM ₁₀ Sampling Station	N	-
		February 6, 2024
TSP Samples Collected	Y	February 12, 2024
		February 18, 2024
		February 24, 2024
PM ₁₀ Samples Collected	Y	February 6, 2024 February 12, 2024

Activity	Completed (Y/N)	Date(s)
		February 18, 2024
		February 24, 2024
		February 6, 2024
VOC and TNMOC Samples	Y	February 12, 2024
Collected	T	February 18, 2024
		February 24, 2024
TSP Metal Analysis Conducted	N	-
PM ₁₀ Metal Analysis Conducted	N	-
		February 6, 2024
TSP Sampler Maintenance	Y	February 12, 2024
Activities	ř –	February 18, 2024
		February 24, 2024
		February 6, 2024
PM ₁₀ Sampler Maintenance	Y	February 12, 2024
Activities	ř	February 18, 2024
		February 24, 2024
	Other	
Dust Suppression Activities	N	-

Note:

(1) The wind speed/direction sensor on the Facility Site Meteorological Station was checked for calibration on June 30, 2023 and was shown to be within the allowable tolerances and was then re-installed after calibration.

(2) Instrument is not currently reporting due to anemometer program corruption. The instrument was calibrated prior to install in the Fall of 2014 for voluntary reporting.

3. Summary of Electronic Transfer System (ETS) Submittals

In addition to the February 2024 monthly report, the following summarized items were submitted to the ETS:

3.1 AMD XML Schema

An XML formatted Schema file was submitted to the Alberta EPA via the ETS portal. The XML Schema file contains the results from:

- Wind
 - Facility Meteorological Station EPA Station ID 00010348-C-1.
 - Facility Site Station EPA Station ID 00010348-C-2.
 - Ryley School Station EPA Station ID 00010348-C-3.

- TSP
 - Facility Site Station EPA Station ID 00010348-I-2.
 - Ryley School Station EPA Station ID 00010348-I-3.
 - Highway 854 Lift Station EPA Station ID 00010348-I-1.
- PM10
 - Highway 854 Lift Station EPA Station ID 00010348-I-1.

3.2 Ambient Air Monitoring Program Laboratory Reports

One laboratory report in PDF file format was submitted to the Alberta EPA via the ETS portal. The PDF file contains the results from EPA Station ID 00010348-I-1, EPA Station ID 00010348-I-2, and EPA Station ID 00010348-I-3.

3.3 Ambient Air Monitoring Program Calibration Reports

One calibration report in PDF file format was submitted to the Alberta EPA via the ETS portal. The PDF file contains the results from EPA Station ID 00010348-C-1.

4. Calibration and Operation & Maintenance (O&M) Activities

4.1 Facility Meteorological Station for Wind Speed and Direction (EPA Station ID 00010348-C-1)

The Facility Meteorological Station was taken down and calibrated on June 30, 2023. The station was shown to be within all allowable tolerances, as required by the manufacturer, and was then reinstalled after calibration. Provided in Appendix A is the calibration report and record of installation.

4.2 Facility Site Station for Wind Speed and Direction (EPA Station ID 00010348-C-2)

The Facility Site Station was last calibrated upon installation. When installed, the station was shown to be within all allowable tolerances, as required by the manufacturer.

During May 2023, Clean Harbors chose to swap the Ryley School Station (EPA Station ID 00010348-C-3) anemometer with the Facility Site Station (EPA Station ID 00010348-C-2) anemometer due to EPA Station ID 00010348-C-3 anemometer program corruption. Per Approval No. 10348-03-01, Clean Harbors is only required to report "a minimum of one (1) meteorological station in each of the Ryley School and Facility Site intermittent ambient air quality monitoring stations" thus, reporting from Station ID 00010348-C-2 is not required as Clean Harbors reports from the Facility Meteorological Station (Station ID 00010348-C-1).

4.3 Ryley School Station for Wind Speed and Direction (EPA Station ID 00010348-C-3)

The Ryley School Station was taken down and calibrated on June 30, 2023. The station was shown to be within all allowable tolerances, as required by the manufacturer, and was then re-installed after calibration. Provided in Appendix A is the calibration report.

4.4 Facility Site Station TSP Hi-Vol Sampler (EPA Station ID 00010348-I-2)

The sampling activities for the Tisch TE-5170V VFC High Volume TSP Sampler (TSP Hi-Vol Sampler) are recorded in the field sampling sheets provided in Appendix B.

On a quarterly basis, performance audits are completed on the TSP Hi-Vol Sampler. A quarterly audit was performed on December 13, 2023.

4.5 Ryley School Station TSP Hi-Vol Sampler (EPA Station ID 00010348-I-3)

The sampling activities for the TSP Hi-Vol Sampler are recorded in the field sampling sheets provided in Appendix B.

On a quarterly basis, performance audits are completed on the TSP Hi-Vol Sampler. A quarterly audit was performed on December 13, 2023.

4.6 Highway 854 Lift Station TSP Hi-Vol Sampler (EPA Station ID 00010348-I-1)

The sampling activities for the TSP Hi-Vol Sampler are recorded in the field sampling sheets provided in Appendix B.

On a quarterly basis, performance audits are completed on the TSP Hi-Vol Sampler. A quarterly audit was performed on December 13, 2023.

4.7 Highway 854 Lift Station PM₁₀ Sampler (EPA Station ID 00010348-I-1)

Maintenance activities for the Thermo Scientific[™] Partisol 2000i-Federal Reference Method (FRM) PM₁₀ Sampler included inlet cleaning and leak checks that were conducted before each sampling event in February 2024. The pre-sampling maintenance activities are recorded in the field sampling sheets provided in Appendix B.

On a quarterly basis, performance audits are completed on the TSP Hi-Vol Sampler. A quarterly audit was performed on December 13, 2023.

5. Ambient Air Monitoring Results

The following section presents the results from the ambient air monitoring program for the Facility Meteorological Station (EPA Station ID 00010348-C-1), Facility Site Station (EPA Station ID 00010348-C-2), Ryley School Station (EPA Station ID 00010348-C-3), Highway 854 Lift Station (EPA Station ID 00010348-I-1), Facility Site Station (EPA Station ID 00010348-I-2), and Ryley School Station (EPA Station ID 00010348-I-3) conducted in June 2023. Where applicable, comparisons were made to Alberta Ambient Air Quality Objectives (AAAQO) for parameters that had 24-hour average objectives. These parameters are TSP and some of the VOCs including o,m,p-xylene, hexane, and toluene. For the parameter objectives with averaging periods other than 24-hours, Section 7.1.2 of the Air Quality Model Guideline was used to convert the measured values to the corresponding AAAQO averaging periods prior to comparison. For all other parameters, AAAQO have not been established.

5.1 Meteorological Data for Wind Speed and Direction

In accordance with the Approval and the AMD, the Facility is required to collect wind speed and directional data continuously for the Facility Meteorological Station, Facility Site Station, and Ryley School Station. Tables 1 - 3 present the hourly and 24-hour average wind speeds, Tables 4 - 6 present the hourly and 24-hour most frequent wind direction data (degrees from north), and Tables 7 - 9 present the Wind Class Frequency Distribution for February 2024 from the Facility Meteorological Station, Facility Site Station, and Ryley School Station, respectively. Appendix C provides graphical representations of the Wind Class Frequency Distribution and the Wind Roses based on Tables 1 - 9.

5.1.1 Facility Meteorological Station Data Verification and Validation and Uptime (EPA Station ID 00010348-C-1)

Based on the verification and validation process conducted for the meteorological data that was collected in February 2024, it was determined that 99.91 percent of the data is valid, which represents 99.91 percent uptime of the meteorological station. This is above the 90 percent uptime limit required for compliance, as per the Approval.

5.1.2 Facility Site Station Data Verification and Validation and Uptime (EPA Station ID 00010348-C-2)

As noted above, Clean Harbors chose to swap the Ryley School Station (EPA Station ID 00010348-C-3) anemometer with the Facility Site Station (EPA Station ID 00010348-C-2) anemometer due to EPA Station ID 00010348-C-3 anemometer program corruption. Per Approval No. 10348-03-01, Clean Harbors is only required to report "a minimum of one (1) meteorological station in each of the Ryley School and Facility Site intermittent ambient air quality monitoring stations" thus, reporting from Station ID 00010348-C-2 is not required as Clean Harbors reports from the Facility Meteorological Station (Station ID 00010348-C-1).

5.1.3 Ryley School Station Data Verification and Validation and Uptime (EPA Station ID 00010348-C-3)

Based on the verification and validation process conducted for the meteorological data that was collected in February 2024, it was determined that 100 percent of the data is valid, which represents 100 percent uptime of the meteorological station. This is above the 90 percent uptime limit required for compliance, as per the Approval.

5.2 **TSP Concentrations**

AAAQO are specified for TSP at 100 μ g/m³ (24-hour averaging period). The sample results are converted to a 24-hour averaging period for comparison with the sample AAAQO.

In accordance with the Facility's Approval, TSP samples that exceed 50 μ g/m³ are analyzed for a target list of metals. Appendix B provides the field sheets completed for each sampling event. Appendix D provides the chain of custody forms and laboratory analytical reports.

5.2.1 Facility Site Station (EPA Station ID 00010348-I-2)

Table 10 presents the results of the sampling conducted for TSP from the Facility Site Station. The TSP sample collected in February 2024 (converted to a 24-hour averaging period) was shown to have a TSP concentration of 16.153 μ g/m³, which is below the 100 μ g/m³ AAAQO threshold.

5.2.2 Ryley School Station (EPA Station ID 00010348-I-3)

Table 11 presents the results of the sampling conducted for TSP from the Ryley School Station. The TSP sample collected in February 2024 (converted to a 24-hour averaging period) was shown to have a TSP concentration of 15.693 μ g/m³, which is below the 100 μ g/m³ AAAQO threshold.

5.2.3 Highway 854 Lift Station (EPA Station ID 00010348-I-1)

Table 12 presents the results of the sampling conducted for TSP from the Highway 854 Lift Station. None of the samples analyzed in February 2024 were shown to have elevated TSP concentration above the 100 μ g/m3 AAAQO threshold.

It is noted that for Test #886 performed on February 6, 2024, the sampler has only run for approximately 23-hours as there was a power outage lasting approximately 40 minutes.

5.3 PM₁₀ Concentrations

AAAQO are specified for TSP at 100 μ g/m³ and Particulate Matter \leq 2.5 microns (PM_{2.5}) at 29 μ g/m³ (24-hour averaging period). There is currently no AAAQO specified for PM₁₀ for a 24-hour averaging period in Alberta. To correlate PM₁₀ data with TSP data, Clean Harbors will continue PM₁₀ sampling at the station for a two-year period. In accordance with the Facility's Approval, PM₁₀ samples that exceed 50 μ g/m³ are analyzed for a target list of metals. Appendix B provides the field sheets completed for each sampling event. Appendix D provides the chain of custody forms and laboratory analytical reports.

5.3.1 Highway 854 Lift Station (EPA Station ID 00010348-I-1)

Table 13 presents the results of the sampling conducted for PM_{10} .

5.4 VOC and TNMOC Concentrations

There are three VOC parameters that have corresponding AAAQO with 24-hour averaging periods including o,p,m-xylene, hexane and toluene. Appendix B provides the field sheets completed for each sampling event. Appendix D provides the chain of custody forms and laboratory analytical reports.

5.4.1 Highway 854 Lift Station (EPA Station ID 00010348-I-1)

Table 14 presents the VOC and TNMOC concentrations measured in February 2024. There were no exceedances for the parameters with AAAQO in February 2024.

5.5 Metal Concentrations

In accordance with the Facility's Approval, if collected TSP or PM₁₀ samples show exceedances over 50 µg/m³ after gravimetric analysis, a subsequent filter particulate analysis is done using inductively coupled plasma mass spectroscopy (ICP-MS) for 21 trace elements. There are four parameters that have corresponding AAAQO with 1-hour averaging periods including arsenic, chromium, lead, nickel, and manganese. The sample results were converted to a 1-hour averaging period for comparison with the sample AAAQO. If metal analysis was conducted, Appendix B provides the field sheets completed for each sampling event. Appendix D provides the chain of custody forms and laboratory analytical reports.

5.5.1 Facility Site Station (EPA Station ID 00010348-I-2)

The TSP sample collected in February 2024 was below 50 μ g/m³ and as such, analysis for metals was not required on the sample.

5.5.2 Ryley School Station (EPA Station ID 00010348-I-3)

The TSP sample collected in February 2024 was below 50 μ g/m³ and as such, analysis for metals was not required on the sample.

5.5.3 Highway 854 Lift Station (EPA Station ID 00010348-I-1)

TSP

None of the TSP samples analyzed in February 2024 were above 50 μ g/m³ and as such, analysis for metals was not conducted on the samples.

PM10

None of the PM_{10} samples analyzed in February 2024 were above the 50 μ g/m³ and as such, analysis for metals was not conducted on the samples.

5.6 Dust Suppression

There were no dust suppression activities, which include using leachate spread on the surface of the active landfill, conducted during February 2024.

6. Conclusions

The following summarizes the Ambient Air Monitoring Program that was conducted in February 2024.

- 1 During February 2024, the Facility Meteorological Station (EPA Station ID 00010348-C-1) operated at 99.91 percent uptime. Based on the data verification and validation procedure conducted, this is in compliance with the minimum 90 percent uptime required by the AMD.
- 2 During February 2024, the continuous Facility Site wind Station was not operational. Per the approval, reporting from Station ID 00010348-C-2 is not required as Clean Harbors reports from the Facility Meteorological Station.
- 3 During February 2024, the continuous Ryley School wind Station operated at 100 percent uptime. Based on the data verification and validation procedure conducted, this is in compliance with the minimum 90 percent uptime required by the AMD.
- 4 The TSP concentration measured at the intermittent Facility Site Station from February 1, 2024 to March 1, 2024 was 19.090 μg/m³ (concentration when converted to a 24-hour averaging period was 16.153 μg/m³).
- 5 The TSP concentration measured at the intermittent Ryley School Station from February 1, 2024 to March 1, 2024 was 16.069 μg/m³ (concentration when converted to a 24-hour averaging period was 15.693 μg/m³).
- 6 The TSP concentrations measured at the intermittent Highway 854 Lift Station (EPA Station ID 00010348-I-1) on February 6, February 12, February 18, and February 24 were 12.595 μg/m³, 33.420 μg/m³, 27.294 μg/m³, and 22.325 μg/m³ respectively.
- 7 The PM₁₀ concentrations measured at the intermittent Highway 854 Lift Station (EPA Station ID 00010348-I-1) on February 6, February 12, February 18, and February 24 were 8.958 μg/m³, 13.049 μg/m³, 18.740 μg/m³, and 8.000 μg/m³ respectively.
- 8 Based on the VOC and TMNOC results measured at the intermittent Highway 854 Lift Station (EPA Station ID 00010348-I-1), no exceedances were detected for parameters with applicable AAAQO, which included o,m,p-xylene, hexane and toluene. There are no applicable AAAQO for other parameters that were monitored in February 2024.
- 9 The TSP concentration measured for Facility Test #111 (HV-22-04-019), conducted from February 1, 2024 to March 1, 2024, was below the 50 µg/m³ threshold outlined in the Facility's approval.

- 10 The TSP concentration measured for School Test #111 (HV-22-12-10), conducted from February 1, 2024 to March 1, 2024, was below the 50 μg/m³ threshold outlined in the Facility's approval.
- 11 None of the TSP concentrations measured at the Highway 854 Lift Station were over the $50 \ \mu g/m^3$ threshold outlined in the Facility's approval.
- 12 None of the PM_{10} concentrations measured at the Highway 854 Lift Station were over the 50 μ g/m³ threshold outlined in the Facility's approval.

Clean Harbors will continue to perform their Facility's Ambient Air Monitoring Program in accordance with their Approval and the AMD and evaluate the data to determine impacts on the ambient air quality.

7. Certification

Per the requirements of AMD, Chapter 9, Section 2.3, the following certification is provided for the February 2024 Ambient Air Monitoring Report.

"I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization and reporting requirements."

Stan Yuka

Stan Yuha Plant Manager/Report Certifier

END OF REPORT

Tables

Average Wind Speed (metres/second) EPA Station ID 00010348-C-1 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

								Ryle	ey Wind	Speed	Data (n	n/s) - Mo	onth of	Februar	y 2024									
Day/Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	5.8	6.2	5.4	4.9	5.1	3.3	2.7	2.4	2.6	2.4	2.5	2.5	3.3	4.7	4.4	4.4	3.0	4.1	3.6	3.8	3.7	3.6	3.3	2.2
2	3.2	3.3	3.7	4.0	3.9	3.2	2.4	2.8	2.6	3.0	3.3	2.7	2.4	2.3	2.1	2.1	3.1	3.3	1.7	1.6	1.7	0.3	0.2	2.5
3	2.6	2.1	3.0	4.3	3.5	3.1	3.4	3.7	3.2	3.6	4.5	5.6	9.2	11.7	12.2	10.0	10.3	7.9	9.2	9.0	8.6	7.1	5.8	5.1
4	5.2	5.7	5.1	5.3	4.6	4.5	4.2	4.0	3.7	3.9	4.1	3.9	3.4	2.6	2.3	1.9	1.5	2.3	1.4	1.3	1.7	1.9	1.7	1.8
5	1.6	1.8	1.8	1.7	1.3	0.6	0.1	0.3	0.3	0.2	0.7	1.4	1.9	2.7	2.7	2.7	2.8	1.7	2.1	1.9	2.0	1.2	1.7	1.2
6	1.6	1.4	1.2	1.6	2.0	1.6	1.9	2.6	2.6	3.2	3.3	(X)	4.9	5.3	5.2	4.9	4.3	5.0	4.2	4.4	4.5	3.8	3.9	3.5
7	3.0	2.7	2.3	2.3	1.8	1.4	1.4	0.7	1.1	1.2	1.5	1.1	1.0	0.9	0.8	0.9	1.6	1.4	1.1	0.9	0.8	0.9	0.8	0.8
8	0.7	0.8	0.5	0.0	0.7	0.6	0.6	0.5	0.2	0.3	0.0	0.0	0.1	0.5	0.4	0.4	0.0	1.7	1.6	2.9	2.2	2.5	3.1	2.5
9	3.2	2.9	3.6	2.9	4.2	7.1	7.4	6.2	5.0	3.6	4.1	5.3	5.0	5.3	4.4	3.6	2.7	2.9	1.4	2.3	1.9	2.2	2.9	4.7
10	4.9	3.7	3.2	2.7	2.6	2.3	3.6	2.6	2.0	1.6	2.5	2.7	2.6	2.4	2.0	2.8	3.5	3.0	3.1	5.3	5.6	6.9	6.7	6.8
11	6.4	6.5	6.8	6.8	7.2	6.3	5.6	5.6	4.4	5.9	6.7	6.6	6.0	6.0	5.2	4.7	4.7	4.4	4.8	4.0	4.0	5.2	6.4	6.3
12	2.5	2.3	3.0	2.5	3.5	2.4	1.9	1.8	1.6	2.0	2.1	2.7	2.7	4.5	5.8	7.3	7.3	5.3	3.8	4.3	5.0	5.5	5.1	6.2
13	5.4	5.3	4.8	5.3	4.7	5.1	6.2	6.4	6.8	6.8	6.8	7.2	8.1	7.3	6.6	6.3	5.8	4.3	3.5	3.6	5.2	5.8	4.9	4.8
14	6.0	5.5	5.5	4.8	4.7	4.2	3.7	5.5	5.2	6.0	6.0	6.3	6.9	7.2	6.0	5.3	5.2	4.2	2.6	1.3	0.4	0.5	0.7	0.9
15	0.5	0.5	0.3	0.6	1.0	0.7	0.9	1.0	1.6	1.7	1.4	1.0	0.9	0.8	1.3	1.2	2.2	1.8	2.0	3.7	3.8	3.7	4.2	5.3
16	5.6	5.7	5.7	6.1	6.1	5.5	4.1	5.0	6.1	6.1	4.3	4.5	3.0	4.3	3.7	4.0	4.3	4.9	5.8	6.8	6.5	7.5	7.4	8.2
17	7.4	7.6	8.4	7.3	3.6	4.6	3.9	3.6	5.6	4.4	4.0	3.7	3.5	2.4	1.9	1.4	2.2	1.8	2.3	2.2	2.6	3.8	3.5	3.2
18	3.8	2.3	2.0	2.8	3.2	2.0	1.4	1.3	1.2	0.9	0.8	1.8	1.7	2.4	1.7	2.1	2.1	1.1	1.8	2.9	4.3	2.2	3.6	6.0
19	6.3	5.8	5.8	5.2	5.0	5.0	5.3	5.0	5.3	4.5	3.1	2.0	1.6	1.5	1.1	0.9	1.8	2.4	1.9	2.4	2.8	2.7	2.6	1.9
20	2.3	2.9	3.8	2.9	1.8	1.5	3.2	2.0	1.6	3.2	2.5	1.0	0.5	1.9	2.0	1.2	0.7	1.2	1.9	2.0	1.0	0.4	0.3	0.7
21 22	2.8	3.2	3.6 5.5	2.9	3.2	3.0	2.6	3.6	4.1	3.2	1.5	0.9	2.7	2.8	3.0 5.6	3.6	4.0	3.1	1.7	2.4	3.8	4.6	5.9	6.2
	6.6 6.1	6.4	5.5	5.2	4.8	5.5	5.1	4.7 6.6	4.4	4.7	4.7	5.8 6.7	6.7	6.2	5.6	5.8	5.4	4.2	3.5	4.6	5.4	6.0	6.3	6.3 2.0
23 24	7.3	6.3 7.3	6.3	6.2	7.0 4.2	5.7 4.3	6.3	6.6	7.4	7.3 7.1	7.0 7.0	6.7	5.6	6.3	5.1	3.0	3.2	3.1	4.0	4.7	4.8	6.3 1.7	4.4 2.4	3.9 2.9
24	7.5 3.7	7.5 4.1	8.6 4.0	6.4 3.0	4.2 2.4	4.3 3.3	4.4 3.9	4.9 3.5	6.7 3.2	2.9	7.0 1.8	8.4 0.4	8.9 1.5	8.4 3.4	7.5 4.6	6.6 6.5	6.0 6.6	5.6 7.2	1.9 8.1	0.9 8.1	0.4 8.4	9.0	2.4 10.5	2.9 11.7
25	3.7 11.3	4.1 11.8	4.0 12.0	3.0 11.1	2.4 11.4	3.3 10.0	3.9 9.7	3.5 9.1	3.2 7.9	2.9 7.5	7.3	0.4 6.9	6.8	3.4 6.5	4.0 6.4	6.0	5.1	7.2 4.6	o. 1 3.6	o. 1 3.0	0.4 2.9	9.0 2.6	2.0	1.7
20	1.2	1.7	12.0	2.1	2.1	1.5	9.7 2.0	9.1 1.4	0.6	7.5 0.5	7.3 1.0	0.9 1.6	0.0 1.7	0.5 1.4	0.4 1.3	0.0 1.8	2.3	4.0 2.8	3.0 3.0	3.0 2.9	2.9 3.2	2.0 3.4	2.0 3.6	3.4
27	3.7	3.3	3.6	2.1 3.7	2.1 5.0	4.6	2.0 5.8	1.4 6.7	0.0 6.9	0.5 6.7	7.5	7.5	7.1	7.2	7.4	7.2	2.3 6.8	2.0 6.9	3.0 7.4	2.9 7.7	5.2 6.7	5.4 6.6	3.0 7.7	3.4 7.0
20	6.4	3.3 4.7	3.0 4.9	5.9	6.1	4.0 6.4	5.8 4.6	3.8	0.9 3.1	4.2	7.5 8.9	7.5	7.6	7.2 8.1	7.4 7.4	6.2	5.8	6.5	7.4	7.8	7.6	0.0 7.9	7.7 8.4	7.0 7.4
23	0.4	4.1	4.3	5.9	0.1	0.4	4.0	0.0	5.1	7.2	0.9	1.2	7.0	0.1	7.4	0.2	5.0	0.0	1.0	1.0	1.0	1.3	0.4	1.4

Notes:

- (X) - Power outage on February 6, 2024 that lasted approximately 40 minutes.

Average Wind Speed (metres/second) EPA Station ID 00010348-C-2 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

								Ry	ey Wind	Speed	Data (m/s) - M	onth of	Februar	y 2024									
Day/Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
2	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
3	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
4	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
5	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
6	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
7	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
8	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
9	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
10	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
11	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
12	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
13	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
14	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
15	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
16	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
17	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
18	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
19	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
20	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
21	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
22	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
23	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
24	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
25	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
26	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
27	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
28	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								
29	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)								

Notes:

- (X) - Equipment Malfunction

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Average Wind Speed (metres/second) EPA Station ID 00010348-C-3 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

								Ry	ey Wind	I Speed	Data (n	n/s) - Mo	onth of	Februar	y 2024									
Day/Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4.9	5.4	4.0	4.1	4.5	2.5	2.6	2.1	2.0	1.6	2.0	2.2	2.8	4.1	3.6	3.9	2.5	3.5	2.9	2.7	3.6	2.9	3.0	1.5
2	1.8	2.1	2.6	3.5	3.2	2.8	2.0	2.2	1.7	1.9	2.3	2.6	2.0	1.4	1.7	1.8	1.4	0.9	0.8	0.3	0.7	0.1	0.4	1.0
3	1.6	0.8	1.2	2.5	1.5	1.4	2.0	2.4	1.2	1.8	2.6	2.5	3.3	4.2	4.2	3.6	3.7	2.4	2.7	2.8	2.7	2.7	2.2	1.4
4	1.6	2.0	2.1	2.0	1.9	2.5	2.4	2.5	2.2	1.9	2.1	2.0	1.9	1.7	1.6	1.4	1.1	1.2	0.9	0.8	1.3	1.7	1.4	1.4
5	1.3	1.4	1.5	1.5	1.1	0.6	0.2	0.3	0.4	0.3	0.5	0.9	1.0	1.2	1.1	1.2	1.2	0.7	0.8	0.8	0.7	0.6	0.7	0.5
6	1.0	0.9	1.1	1.5	1.8	1.4	1.8	2.3	2.5	2.9	2.8	3.3	4.2	4.2	4.2	4.2	3.6	3.8	3.4	3.4	3.7	3.0	2.9	3.0
7	2.7	2.3	2.1	2.1	1.6	1.4	1.0	0.5	0.8	0.9	1.2	0.8	0.9	0.9	0.9	0.8	1.2	1.2	0.9	0.7	0.4	0.5	0.6	0.4
8	0.3	0.7	0.6	0.3	0.6	0.6	0.6	0.4	0.6	0.6	0.1	0.0	0.3	0.4	0.3	0.4	0.4	0.5	1.0	1.6	1.5	1.0	1.2	1.0
9	1.2	1.1	1.8	1.7	1.7	2.1	3.2	2.1	2.6	1.7	2.3	3.3	3.4	3.3	2.5	2.2	1.8	1.4	0.2	0.2	0.6	0.4	0.6	0.8
10	0.9	0.5	1.1	1.4	1.2	1.2	1.7	2.1	2.3	1.6	1.7	1.8	1.9	2.0	1.9	2.2	2.9	2.3	2.3	1.8	1.4	1.5	1.7	2.0
11	2.2	2.6	2.5	1.5	1.8	2.1	1.8	2.7	2.8	3.2	3.7	4.2	4.1	3.8	2.7	2.0	1.3	1.0	0.8	0.8	0.8	1.6	1.3	1.2
12	1.2	1.0	0.8	0.8	0.9	0.9	0.9	0.5	0.9	2.1	1.4	1.2	1.3	3.1	3.5	4.2	4.1	3.2	2.3	1.2	1.2	0.8	1.0	1.1
13	2.0	2.0	2.3	2.6	3.0	3.2	3.3	2.4	2.7	2.4	2.5	1.9	2.5	2.4	2.0	3.8	3.0	3.2	1.7	1.3	0.7	1.2	1.2	1.0
14	1.4	1.5	1.4	1.7	2.6	2.8	2.4	3.3	3.2	2.7	2.0	2.0	3.0	2.7	2.3	1.9	1.9	1.7	1.0	0.4	0.2	0.5	0.2	0.2
15	0.2	0.4	0.2	0.3	0.3	0.4	0.6	0.6	0.8	0.6	0.5	0.5	0.3	1.1	0.6	0.6	1.0	1.2	1.2	1.3	1.1	1.5	1.3	1.4
16	1.6	1.4	1.1	1.4	0.9	1.0	0.9	0.9	1.3	1.4	1.6	1.8	2.3	2.3	2.1	1.4	1.4	1.7	1.4	1.6	1.7	2.0	1.7	2.2
17	2.1	2.1	2.5	1.7	2.0	1.1	1.0	1.5	2.9	1.8	2.3	2.9	2.2	1.7	1.5	0.9	1.0	1.4	1.3	1.5	1.9	1.8	2.1	2.2
18	1.8	1.2	0.8	1.0	1.4	1.0	0.6	0.6	0.6	0.4	0.6	1.0	1.2	1.4	1.5	1.7	1.5	1.0	1.0	0.8	0.6	0.5	0.9	1.3
19	1.2	1.0	1.5	2.0	1.7	1.2	1.3	1.0	1.0	0.7	0.6	0.5	0.8	0.9	0.5	0.6	1.6	1.7	1.4	1.1	1.1	1.5	1.4	0.8
20	1.5	2.3	2.8	1.3	0.8	0.7	1.0	1.2	1.0	1.6	2.5	0.8	0.6	1.6	1.7	1.3	0.6	0.9	1.6	1.5	0.5	0.3	0.1	0.4
21	1.2	1.3	1.7	1.5	1.0	1.4	1.2	1.3	1.3	0.6	0.5	1.0	1.3	1.3	1.3	1.4	2.2	1.4	1.3	1.7	2.0	1.7	1.5	1.5
22	1.8	1.4	1.0	1.5	2.7	2.2	2.4	2.1	1.4	1.7	3.0	3.3	4.8	4.0	3.9	4.3	3.5	2.7	1.7	1.1	0.5	0.9	1.0	1.0
23 24	1.0 4.0	1.2 4.3	1.2 4.4	1.2 3.7	1.5 2.2	1.1 1.8	1.3 1.9	1.8 2.9	2.0 4.2	1.8 4.4	2.1 4.9	1.9 5.3	2.2 5.2	1.8 4.6	1.7 4.3	1.9 3.8	1.2 3.8	1.7 3.7	1.2 0.8	1.2 0.2	2.4 0.1	4.0 0.2	2.6	1.9 0.4
24		4.3 1.2					3.2	2.9 3.0	4.2 2.6	4.4 2.0		0.9	5.2 1.0		4.3 3.2		5.0 5.2			0.2 3.7	0.1 3.7		0.3 4.5	0.4 4.6
25 26	1.5 5.6	1.2 6.6	1.0 6.9	0.9 6.1	1.8 6.2	2.7 6.2	3.∠ 5.8	3.0 5.0	2.6 3.4	2.0 3.0	1.4 2.7	0.9 2.6	1.0 3.1	2.6 2.6	3.2 2.6	4.8 2.8	5.2 1.9	5.5 2.0	3.7 1.3	3.7 0.9	3.7 1.1	3.8 0.6	4.5 0.4	4.6 0.3
26	5.6 0.4	6.6 0.7	6.9 0.6	0.1 0.7	6.2 0.7	6.2 0.4	5.8 1.0	5.0 0.5	3.4 0.1	3.0 0.2	2.7 0.6	2.6 0.6	3.1 0.8	2.6 0.9	2.6 1.0	2.8 1.5	1.9 2.2	2.0 2.2	1.3 2.1	0.9 2.1	1.1 2.6	0.6 3.0	0.4 3.2	0.3 3.2
27	0.4 3.1	0.7 3.2	0.6 3.3	0.7 3.5	0.7 3.6	0.4 3.8	4.9	0.5 5.4	0.1 5.1	0.2 5.2	0.8 6.1	0.6 5.7	0.o 5.5	0.9 5.6	1.0 5.5	1.5 5.9	2.2 5.4	2.2 4.9	2.1 5.7	2.1 6.2	2.6 5.3	3.0 5.5	3.∠ 5.6	3.2 5.4
20	3.1 4.7	3.2 4.3	3.3 3.4	3.5 4.3	3.6 4.2	3.0 4.4	4.9 3.7	5.4 1.9	5.1 1.7	5.2 1.4	6.1 3.8	5.7 2.7	5.5 3.8	5.6 4.0	5.5 3.3	5.9 2.0	5.4 1.9	4.9 3.1	5.7 3.7	0.2 3.3	5.3 3.3	5.5 2.9	5.6 3.3	5.4 2.5
23	4.7	4.5	0.4	4.5	7.2	4.4	5.7	1.3	1.7	1.4	5.0	2.1	5.0	4.0	5.5	2.0	1.3	5.1	5.7	5.5	0.0	2.3	0.0	2.0

Average Wind Direction (degrees from North) EPA Station ID 00010348-C-1 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

							Ryley \	Nind D	irection	Data (de	grees, l	blowing	from) -	Month	of Feb	ruary 2	024							
Day/Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	120	128	130	135	140	155	146	130	119	123	127	146	132	126	135	119	134	122	113	116	128	128	143	112
2	113	110	121	131	127	130	121	124	123	135	163	161	179	167	177	175	187	211	277	272	266	233	181	232
3	270	266	265	274	290	279	280	279	306	293	293	313	317	315	311	311	314	312	311	309	311	314	315	311
4	308	313	317	322	326	189	223	227	276	326	329	314	330	209	110	23	109	293	22	33	51	80	89	99
5	107	116	111	112	123	151	166	170	254	314	278	273	292	305	313	322	295	321	318	303	318	287	293	303
6	128	34	91	85	99	108	108	133	87	64	54	(X)	87	87	89	88	80	71	72	73	73	83	89	100
7	103	93	65	59	45	44	42	83	72	108	248	41	213	179	257	250	338	319	287	343	320	333	339	324
8	334	59	40	110	280	253	142	64	76	83	99	223	190	146	197	246	125	83	261	287	281	260	259	266
9	256	260	297	291	306	315	306	307	295	255	254	262	261	263	286	290	287	300	237	127	75	78	68	53
10	73	155	154	56	51	85	108	86	54	69	107	161	148	148	153	120	145	170	181	190	193	158	180	244
11	255	244	253	219	32	168	279	254	257	254	256	259	263	260	255	216	54	36	30	41	74	44	25	25
12	48	45	37	67	146	60	49	41	47	44	136	174	214	285	303	303	301	297	283	258	249	247	246	265
13	266	259	264	277	279	283	293	305	308	310	310	315	314	314	310	296	298	282	259	249	211	206	212	208
14	118	21	25	181	274	286	275	289	287	300	316	322	328	321	314	319	325	331	331	279	79	113	201	259
15	159	201	117	206	203	71	320	305	276	280	276	272	276	210	271	211	71	102	120	35	33	35	35	29
16	28	27	29	27	29	53	115	21	26	42	160	165	270	270	258	78	30	32	25	24	29	23	32	27
17	27	26	21	30	206	258	250	258	253	259	267	272	268	257	275	238	181	178	171	156	153	166	171	174
18 19	175 202	137 217	122	132 265	178	159	164 253	210	183 222	128 236	235	275	265	289 248	315 268	219 275	103 186	59 169	139 129	177 100	196 114	193 123	204	202 158
20	202 164	162	240 181	205 191	261 207	244 159	255 153	230 174	136	230 155	235 164	216 199	247 200	240 88	200 139	275 145	241	168 198	129	133	185	240	113 200	244
20	256	267	274	278	289	271	263	266	257	249	220	178	200	204	201	145	201	204	210	179	195	240	200	244 205
21	207	207	223	246	203 254	251	259	260	242	245	258	274	276	246	261	272	286	281	266	226	208	204	210	203
23	207	208	216	221	219	212	200	199	202	207	209	205	202	219	229	244	200 194	190	200	226	268	280	279	200
24	283	271	308	288	257	236	252	274	294	292	303	308	313	312	310	312	306	307	312	261	246	214	195	191
25	192	197	199	203	181	167	166	172	181	185	177	143	71	59	56	58	61	58	46	44	43	42	36	28
26	83	30	59	167	185	294	346	338	328	326	325	326	326	324	325	327	321	321	322	318	321	324	324	325
27	322	298	302	285	276	287	280	304	209	182	222	223	231	236	264	125	54	71	74	93	64	44	30	31
28	22	35	28	28	28	32	28	25	24	26	24	23	22	21	22	24	31	34	34	30	30	28	28	28
29	27	32	37	37	34	28	38	41	38	309	324	319	324	323	325	327	332	336	346	343	339	335	334	332

Notes:

-Power outage on February 6, 2024 that lasted approximately 40 minutes.

Average Wind Direction (degrees from North) EPA Station ID 00010348-C-2 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

							Ryley	Wind [Direction	Data (de	egrees,	blowing	from) -	Month	of Febr	uary 20	24							
Day/Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(X)																							
2	(X)																							
3	(X)																							
4	(X)																							
5	(X)																							
6	(X)																							
7	(X)																							
8	(X)																							
9	(X)																							
10	(X)																							
11	(X)																							
12	(X)																							
13	(X)																							
14	(X)																							
15	(X)																							
16	(X)																							
17	(X)																							
18	(X)																							
19	(X)																							
20	(X)																							
21 22	(X)																							
22	(X)	(X) (X)	(X)																					
23	(X)	(X) (X)	(X)	(X)	(X)	(X)	(X) (X)	(X)																
24	(X) (X)	(X) (X)	(X) (X)	(X) (X)	(X) (X)	(X)	(X) (X)																	
25	(X) (X)	(X) (X)	(X) (X)			(X) (X)	(X) (X)		(X) (X)		(X) (X)			(X) (X)	(X) (X)		(X) (X)	(X) (X)				(X) (X)	(X) (X)	
20	(X) (X)			(X) (X)	(X) (X)	(X) (X)	(X) (X)	(X) (X)	(X) (X)															
27	(X) (X)	(×) (X)	(X) (X)	(×) (X)																				
20	(X) (X)	(×) (X)																						
29	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)	(^)

Notes:

- (X) - Equipment Malfunction

Most Frequent Wind Direction (degrees from North) EPA Station ID 00010348-C-3 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

							Ryley	Wind D	irection	Data (de	egrees, l	blowing	from) -	Month	of Febr	uary 20	24							
Day/Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	116	120	118	125	133	122	156	136	121	121	121	147	129	128	129	123	135	119	115	113	125	122	129	122
2	98	103	109	121	117	116	114	123	117	129	172	168	178	174	184	183	207	230	281	257	279	147	203	263
3	275	262	260	275	296	286	285	284	308	294	292	304	316	320	323	327	331	325	323	314	324	330	332	322
4	322	329	335	341	312	100	87	99	122	173	211	223	143	142	82	91	115	211	86	79	81	109	113	117
5	121	131	124	123	130	164	186	194	267	301	275	276	304	307	308	280	156	253	314	313	326	299	297	236
6	129	78	116	114	124	137	133	159	125	118	109	114	115	115	117	123	116	112	115	116	116	115	113	118
7	119	110	99	102	92	86	75	82	82	67	133	107	134	153	185	172	240	191	162	207	325	279	236	321
8	293	100	75	123	162	139	145	144	99	107	153	168	145	201	215	235	228	237	281	295	287	261	256	256
9	257	255	294	292	305	318	305	309	299	260	256	272	264	270	291	289	291	297	206	203	173	208	190	219
10	222	190	168	131	129	137	126	126	134	124	155	159	158	161	157	143	156	180	204	219	221	227	242	245
11	251	248	246	238	234	240	245	250	258	262	261	266	273	270	256	233	228	223	221	217	214	214	220	219
12	127	104	121	134	164	116	123	139	125	120	158	198	239	283	296	298	297	290	277	245	244	239	244	241
13	254	251	259	273	279	285	294	307	307	312	310	320	321	321	319	299	297	284	269	253	225	225	226	225
14	224	223	224	242	275	285	276	288	290	296	313	326	329	331	310	324	321	283	235	325	194	129	229	222
15	231	234	213	249	266	163	257	324	305	292	280	262	199	118	206	209	217	191	181	215	215	212	218	218
16	218	222	226	223	231	230	230	229	229	231	242	242	251	251	249	229	228	224	220	219	217	220	220	220
17	223	222	225	235	248	243	240	253	252	256	270	282	277	261	292	241	207	184	159	132	146	162	173	180
18	167	134	96	106	187	153	167	210	188	166	237	276	281	300	81	85	71	96	141	170	211	199	206	223
19	224	235	245	252	249	241	241	230	237	233	228	233	240	211	199	156	152	165	134	101	102	113	99	151
20	183	163	194	214	209	171	128	151	138	136	175	206	121	99	128	146	242	87	113	129	174	213	224	231
21	253	253	272	281	293	268	249	245	249	243	224	179	212	218	218	217	216	213	217	192	212	218	221	221
22	221	226	229	242	252	246	252	256	245	243	254	272	278	250	259	274	283	280	269	237	222	228	227	225
23 24	226	225	229	232	234	224	227	221	220	224	225	224	220	228	230	239	209	199	223	236	269	282	282	296
24	279	266	302	284	259 205	242	253 197	274 101	285 104	286	288	289	294	297	291	295 86	295	289 75	309	247 47	210	212 43	215	224
25	213 34	221 18	221 6	221 39	205 34	191 86	187 56	191 156	194 320	205 345	198 327	203 339	90 342	89 335	83 332	86 291	80 327	75 229	54 330	47 316	43 200	43 291	32 302	20 292
26	34 287	263	ь 273	39 262	34 244	86 247	56 249	156 249	320 230	345 194	327 245	339 231	342 230	335 213	332 201	291 169	327 160	328 164	330 154	151	300 144	291 134	302 130	292 121
27	207 122	203 115	273 114	202 114	244 115	247 115	249 115	249 114	230 114	194 114	245 114	113	230 112	213 108	201 108	109	92	83	154 91	91	95	134 92	96	99
20	95	85	73	78	80	81	76	55	94	291	301	313	302	301	306	327	92 327	305	297	302	95 305	92 308	90 307	99 317

Wind Frequency Distribution EPA Station ID 00010348-C-1 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

			Frequenc	cy Distributio	n Report: Ryle	y, Alberta - Fe	bruary 2024			
			Wind Spee	ed (m/s) and	Number of C	Occurences (n	ninutes)			Total Occurrences
Direction	Angle	< 0.5	0.5 to < 2.1	2.1 to < 3.6	3.6 to < 5.7	5.7 to < 8.8	8.8 to < 11.1	>= 11.1	%	by Direction
North	> 337.5 - 22.5	190	1387	446	805	1211	251	206	10.8%	4496
Northeast	> 22.5 - 67.5	238	1056	1194	1501	1749	207	78	14.4%	6023
East	> 67.5 - 112.5	216	860	952	733	88	0	0	6.8%	2849
Southeast	> 112.5 - 157.5	189	1022	1711	912	139	0	0	9.5%	3973
South	> 157.5 - 202.5	270	980	1833	1145	375	1	0	11.0%	4604
Southwest	> 202.5 - 247.5	169	678	465	1370	1343	9	0	9.7%	4034
West	> 247.5 - 292.5	268	1681	1953	2919	1119	41	5	19.1%	7986
Northwest	> 292.5 - 337.5	142	1389	1029	1700	2703	609	184	18.6%	7756
Missing/Inva	alid Minutes								0.093%	39
Total Occuren	ices by Speed	1682	9053	9583	11085	8727	1118	473		41760
Occurent	ces by %	4.0%	21.7%	22.9%	26.5%	20.9%	2.7%	1.1%	99.91%	

Note:

-Missing minutes due to power outage on February 6, 2024 that lasted approximately 40 minutes.

Wind Frequency Distribution EPA Station ID 00010348-C-2 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

			Frequency	Distribution	Report: Ryl	ey, Alberta -	February 202	4		
				· · · ·		Occurences (m	,			Total Occurrences
Direction	Angle	< 0.5	0.5 to < 2.1	2.1 to < 3.6	3.6 to < 5.7	5.7 to < 8.8	8.8 to < 11.1	>= 11.1	%	by Direction
North	> 337.5 - 22.5	0	0	0	0	0	0	0	0.0%	0
Northeast	> 22.5 - 67.5	0	0	0	0	0	0	0	0.0%	0
East	> 67.5 - 112.5	0	0	0	0	0	0	0	0.0%	0
Southeast	> 112.5 - 157.5	0	0	0	0	0	0	0	0.0%	0
South	> 157.5 - 202.5	0	0	0	0	0	0	0	0.0%	0
Southwest	> 202.5 - 247.5	0	0	0	0	0	0	0	0.0%	0
West	> 247.5 - 292.5	0	0	0	0	0	0	0	0.0%	0
Northwest	> 292.5 - 337.5	0	0	0	0	0	0	0	0.0%	0
Missing/Inva	alid Minutes								100%	41760
Total Occuren	ices by Speed	0	0	0	0	0	0	0		41760
Occurent	ces by %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%	

Wind Frequency Distribution EPA Station ID 00010348-C-3 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

Frequency Distribution Report: Ryley, Alberta - February 2024										
			Wind Spe	ed (m/s) and			Total Occurrences			
Direction	Angle	< 0.5	0.5 to < 2.1	2.1 to < 3.6	3.6 to < 5.7	5.7 to < 8.8	8.8 to < 11.1	>= 11.1	%	by Direction
North	> 337.5 - 22.5	568	2537	745	343	264	32	3	10.8%	4492
Northeast	> 22.5 - 67.5	140	320	167	142	38	3	1	1.9%	811
East	> 67.5 - 112.5	191	1455	770	881	445	11	0	9.0%	3753
Southeast	> 112.5 - 157.5	306	2733	2003	1081	220	0	0	15.2%	6343
South	> 157.5 - 202.5	564	2029	895	113	0	0	0	8.6%	3601
Southwest	> 202.5 - 247.5	1590	6545	1152	129	4	0	0	22.6%	9420
West	> 247.5 - 292.5	500	3407	2550	1027	149	1	1	18.3%	7635
Northwest	> 292.5 - 337.5	539	2484	1715	822	143	1	1	13.7%	5705
Missing/Invalid Minutes									0.0%	0
Total Occuren	Total Occurences by Speed		21510	9997	4538	1263	48	6		41760
Occurent	Occurences by %		51.5%	23.9%	10.9%	3.0%	0.1%	0.0%	100.00%	

Total Suspended Particulate (TSP) Matter Results EPA Station ID 00010348-I-2 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

Filter ID	HV-22-04-019	AAAQO ⁽²⁾ (ug/m ³)
Test ID	Facility Test # 111	
Sample Start Date/Time	24/02/01 15:00:00	
Sample End Date/Time	24/03/01 16:00:00	
Sampling Time (hours)	43.58	
Flow Rate (m ³ /min)	1.252	
Volume (m³)	3274.00	
TSP Mass (mg)	62.5	
TSP Concentration (ug/m ³) ⁽¹⁾	19.090	
TSP Concentration (ug/m ³) ⁽²⁾	16.153	100.000
Sampler Name	TE-5170V / P8580 TSP VFC	

Notes:

(1) These results are from a 43.33 hour averaging period that took place on February 1, 2024 to March 1, 2024.

(2) Measured data has been converted from the measured 43.58 hour averaging period to a 24 hour averaging period based on the Alberta's Air Quality Model Guideline Section 7.1.2.

Total Suspended Particulate (TSP) Matter Results EPA Station ID 00010348-I-3 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

Filter ID	HV-22-12-10	AAAQO ⁽²⁾ (ug/m ³)
Test ID	School Test # 111	
Sample Start Date/Time	24/02/01 15:00:00	
Sample End Date/Time	24/03/01 16:00:00	
Sampling Time (hours)	26.12	
Flow Rate (m ³ /min)	1.251	
Volume (m³)	1960.3	
TSP Mass (mg)	31.5	
TSP Concentration (ug/m ³) ⁽¹⁾	16.069	
TSP Concentration (ug/m ³) ⁽²⁾	15.693	100.000
Sampler Name	TE-5170V / P8581 TSP VFC	

Notes:

(1) These results are from a 26.12 hour averaging period that took place on February 1, 2024 to March 1, 2024.

(2) Measured data has been converted from the measured 26.12 hour averaging period to a 24 hour averaging period based on the Alberta's Air Quality Model Guideline Section 7.1.2.

Total Suspended Particulate (TSP) Matter Results EPA Station ID 00010348-I-1 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

Filter ID	HVF-23-10-14	HVF-23-10-15	HVF-23-10-16	HVF-23-10-17
Test ID	886	887	888	889
Sample Start Date/Time	24/02/06 00:00:00	24/02/12 00:00:00	24/02/18 00:00:00	24/02/24 00:00:00
Sample End Date/Time	24/02/07 00:00:00	24/02/13 00:00:00	24/02/13 00:00:00 24/02/19 00:00:00	
Sampling Time (hours)	23.06	23.52	23.82	23.87
Flow Rate (m ³ /min)	1.251	1.251	1.251	1.251
Volume (m³)	1730.88	1765.41	1787.93	1791.68
TSP Mass (mg)	21.8	59	48.8	40
TSP Concentration (ug/m ³)	12.595	33.420	27.294	22.325
Sampler Name	TE-5170V / P11162 TSP VFC	TE-5170V / P11162 TSP VFC	TE-5170V / P11162 TSP VFC	TE-5170V / P11162 TSP VFC

Note:

-Sample 886 did not sample for 24 hours due to a power outage lasting approximately 40 minutes.

Particulate Matter PM₁₀ Results EPA Station ID 00010348-I-1 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

Filter ID	AT76596	AT76594	AT76595	AT79744
Test ID	886	887	888	889
Sample Start Date/Time	24/02/06 00:00:00	24/02/12 00:00:00	24/02/18 00:00:00	24/02/24 00:00:00
Sample End Date/Time	24/02/07 00:00:00	24/02/13 00:00:00	24/02/19 00:00:00	24/02/25 00:00:00
Sampling Time (hours)	23.21	24	24	24
Flow Rate (I/min)	16.7	16.7	16.7	16.7
Volume (m³)	24	24.6	24.6	24
PM ₁₀ Mass (mg)	0.215	0.321	0.461	0.192
PM ₁₀ Concentration (ug/m ³)	8.958	13.049	18.740	8.000
Sampler Name	2000 FRM-AE / 200FB209860905	2000 FRM-AE / 200FB209860905	2000 FRM-AE / 200FB209860905	2000 FRM-AE / 200FB209860905

Note:

-Sample 886 did not run for 24 hours due to a power outage lasting approximately 40 minutes.

VOC and TNMOC Analytical Results EPA Station ID 00010348-I-1 Clean Harbors Canada, Inc. Monthly Ambient Air Monitoring Report February 2024

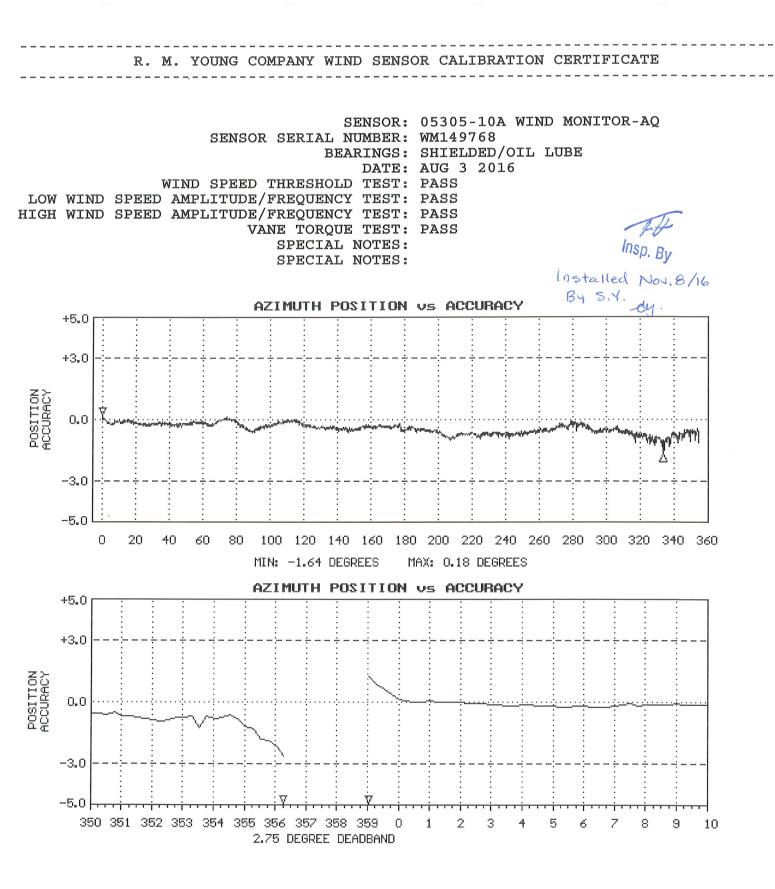
Parameter	Units	Date Sample ID AAAQO ⁽¹⁾	6-Feb-24 886	12-Feb-24 887	18-Feb-24 888	24-Feb-24 889
	onito					
Total Non-Methane Organic Carbon	ppmv	-	< 0.08	< 0.09	< 0.08	< 0.08
1,2,3-Trimethylbenzene	ppbv	-	< 0.08	< 0.09	< 0.08	< 0.08
1,2,4-Trimethylbenzene	ppbv	-	< 0.05	0.09	< 0.05	0.09
1,3,5-Trimethylbenzene	ppbv	-	< 0.05	< 0.05	< 0.05	< 0.05
1-Butene/Isobutylene	ppbv	-	< 0.10	< 0.11	0.15	0.46
1-Hexene/2-Methyl-1-pentene	ppbv	-	< 0.12	< 0.12	< 0.12	< 0.11
1-Pentene	ppbv	-	< 0.05	< 0.05	< 0.05	< 0.05
2,2,4-Trimethylpentane	ppbv	-	< 0.03	0.05	< 0.03	0.06
2,2-Dimethylbutane	ppbv	-	< 0.03	< 0.04	< 0.03	< 0.03
2,3,4-Trimethylpentane	ppbv	-	< 0.03	0.07	0.03	0.05
2,3-Dimethylbutane	ppbv	-	< 0.15	< 0.16	< 0.15	< 0.14
2,3-Dimethylpentane	ppbv	-	< 0.03	0.05	< 0.03	0.08
2,4-Dimethylpentane	ppbv	-	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylheptane	ppbv	-	< 0.03	0.06	< 0.03	0.04
2-Methylhexane	ppbv	-	< 0.05	0.14	0.06	0.34
2-Methylpentane	ppbv	-	0.09	0.36	0.32	0.60
3-Methylheptane	ppbv	-	< 0.05	< 0.05	< 0.05	< 0.05
3-Methylhexane	ppbv	-	< 0.03	0.15	0.07	0.41
3-Methylpentane	ppbv	-	0.05	0.19	0.13	0.10
Benzene	ppbv	-	0.10	0.25	0.22	0.15
cis-2-Butene	ppbv	-	< 0.05	< 0.05	< 0.05	< 0.05
cis-2-Pentene	ppbv	-	< 0.03	< 0.04	< 0.03	< 0.03
Cyclohexane	ppbv	-	< 0.07	0.18	0.09	0.11
Cyclopentane	ppbv	-	< 0.03	0.07	0.05	0.04
Ethylbenzene	ppbv	-	< 0.05	0.73	0.10	0.43
Isobutane	ppbv	-	0.90	0.74	3.04	0.52
Isopentane	ppbv	-	0.38	0.75	1.00	0.65
Isoprene	ppbv	-	< 0.03	< 0.04	< 0.03	< 0.03
Isopropylbenzene	ppbv	-	< 0.07	< 0.07	< 0.07	< 0.06
m,p-Xylene	ppbv	161	< 0.07	2.58	0.25	1.08
m-Diethylbenzene	ppbv	-	< 0.03	< 0.04	< 0.03	< 0.03
m-Ethyltoluene	ppbv	-	< 0.05	0.06	< 0.05	< 0.05
Methylcyclohexane	ppbv	-	0.05	0.22	0.15	0.18
Methylcyclopentane	ppbv	-	< 0.08	0.24	0.12	0.13
n-Butane	ppbv	-	1.20	1.43	2.76	0.90
n-Decane	ppbv	-	< 0.10	< 0.11	< 0.10	< 0.09
n-Dodecane	ppbv	-	< 0.5	< 0.5	< 0.5	< 0.5
n-Heptane	ppbv	-	< 0.07	0.24	0.10	0.58
n-Hexane	ppbv	1990	0.11	0.55	0.35	0.32
n-Nonane	ppbv	-	< 0.07	0.13	0.10	0.09
n-Octane	ppbv	-	< 0.03	0.10	0.07	0.15
n-Pentane	ppbv	-	0.30	0.76	0.78	0.63
n-Propylbenzene	ppbv	-	< 0.10	< 0.11	< 0.10	< 0.09
n-Undecane	ppbv	-	< 0.8	< 0.9	< 0.8	< 0.8
o-Ethyltoluene	ppbv	-	< 0.03	< 0.04	< 0.03	< 0.03
o-Xylene	ppbv	161	< 0.05	0.67	0.06	0.30
p-Diethylbenzene	ppbv	-	< 0.03	< 0.04	< 0.03	< 0.03
p-Ethyltoluene	ppbv	-	< 0.07	< 0.07	< 0.07	< 0.06
Styrene	ppbv	-	< 0.07	< 0.07	< 0.07	< 0.06
	ppbv	106	< 0.05	6.76	0.44	1.40
trans-2-Butene	ppbv	-	< 0.05	< 0.05	< 0.05	< 0.05
trans-2-Pentene	ppbv	-	< 0.03	< 0.04	< 0.03	< 0.03
Total VOCs ⁽²⁾	ppbv	-	6.720	20.510	13.200	12.440

Notes:

(1) Alberta Ambient Air Quality Objectives for a 24 hour averaging period.(2) Total VOCs are calculated under the assumption that values under the detection limit are equal to the detection limit, as per the AMD.

Appendix A Meteorological Station Calibration Report

Clean Harbors Monthly Ambient Air Monitoring Report February 2024



NOTE: Azimuth Position vs Accuracy graphs are accurate to within 0.5 degrees. The accuracy shown in the potentiometer deadband region between 355 and 0 degrees is the result of no resistance change while position changes. The gap represents the actual deadband (open circuit).



GHD Wind Calibration Form

		Site and Instrur	nent Information	1			
	<u>Site</u>		<u>Win</u>	d Monitor			
Location:	Facility		Make:	RM Young			
Calibration Date:	Jun 30, 2023		Model:	05305			
Tech.:	P. Shariaty & S. Davey		Serial #:	149768			
Instrument:	Continuous Wind Monito	r	Calibration due:	Annually			
Time:	1:05 PM - 1:20 PM		Temperature:	25°C			
	re-Calibration Inspection			Y/N			
Is the wind dire	ction < +/- 10° from compas	ss observation?	Ν				
	Is siting aligned?		Y				
-	propeller rotate 360° with n			Y			
Does th	e vane rotate 360° with no f			Y			
		Calibration	Information	-			
	Direction (degrees °)			Anemometer Speed	· · ·		
Test Angle (°)	Recorded Angle (°)	Within +/- 5°? (Y/N)	• • • •	• • • •	Within +/- 3 (m/s)? (Y/N		
0	0	Y	26.1	26.0	Y		
30	29	Y	24.6	24.5	Y		
60	59	Y	23.0	22.9	Y		
180	178	Y	20.5	20.4	Ŷ		
			18.9 41.0	18.9 40.8	Y Y		
	Commei	nts		Conversi	on Factors		
				m/s	RPM		
•	49768) was removed from	•		26.112	5100.0		
	ne 30, 2023. Mechanical b	•	•	24.576	4800.0		
	were cleaned of any dust		•	23.040	4500.0		
	ction calibration adjustme	•	•	20.480	4000.0		
•	n. Other than cleaning and			18.944	3700.0		
biannually and bear	equired. It is recommended ings checked and replaced ation check, wind monitor v	d (if required) at the i	next calibration	40.960	8000.0		
	Calibration Adjustment	Required?: Yes					



GHD Wind Calibration Form

		Site and Instrur	nent Information			
	<u>Site</u>		Win	d Monitor		
Location:	Ryley School		Make:	RM Young		
Calibration Date:	Jun 30, 2023		Model:	05305		
Tech.:	P. Shariaty & S. Davey		Serial #:	183487		
Instrument:	Continuous Wind Monito	r	Calibration due:	Annually		
Time:	10:00 AM - 11:20 AM		Temperature:	22°C		
Pre-Calibration Inspection				Y/N		
Is the wind direction < +/- 10° from compass observation?				N		
	Is siting aligned?			Y		
	propeller rotate 360° with n			Y		
Does the	e vane rotate 360° with no f			Y		
		Calibration	Information			
	Direction (degrees °)			Anemometer Speed	· · ·	
Test Angle (°)	Recorded Angle (°)	Within +/- 5°? (Y/N)	• • •	• • • •	Within +/- 3 (m/s)? (Y/N	
0	1	Y	26.112	26.0	Y	
30	29	Y	24.576	24.5	Y	
330	332	Y	23.040	22.9	Y	
60 90	57 86	Y V	20.480 18.944	20.4 18.9	Y Y	
90	1	I V	40.960	40.8	Y	
180	176	Y	40.300	40.0	I	
260	256	Ŷ				
Comments				Conversion Factors		
				m/s	RPM	
•	83487) was removed from	•		26.112	5100.0	
	ne 30, 2023. Mechanical b	•	•	24.576	4800.0	
	were cleaned of any dust		•	23.040	4500.0	
	ction calibration adjustme	•	•	20.480	4000.0	
calibration inspection. Other than cleaning and direction calibration, no ac				18.944	3700.0	
maintenance was required. It is recommended that the instrument be cleaned biannually and bearings checked and replaced (if required) at the next calibration interval. After the calibration check, the wind monitor was re-installed and sited back to the original position.			next calibration	40.960	8000.0	
	Calibration Adjustment	Required?: Yes				

Appendix B Sampling Field Sheets

Clean Harbors Monthly Ambient Air Monitoring Report February 2024

	FIELD SHEET			
PM	10 (Partisol Monitoring Unit)		
CL	EAN HARBORS CANADA INC			
	RYLEY, ALBERTA		Ι	
<u>A) GENERAL INFORMATION</u>				
Filter ID:	AT76596			
PO Number:	239503			
Partisol Sampler ID/Serial Number:			005	
Test number :	2000 FRM-AE / 200FB2098	560	905	
Sample Date:	Particulate Test 886		uu/mm/dd	
Shipping Date to Laboratory:	24/02/06		yy/mm/dd	
PM10 Analysis Trigger Weight (mg):	24/02/08		woight which DM10 conc	$\sum FO u \pi / m^3$
Pivito Analysis migger weight (mg).	1.20		weight which PM10 conc.	> 50 μg/ m
B) SAMPLING INFORMATION				
SAMPLE START				
Sampling Start Date:	24/02/06			
Sampling Start Dute:	00:00			
Current Instrument Date:	24/02/02			
Current Instrument Time:	13:17			
Ambient Temperature °C:	7.7			
Barometric Pressure (mm Hg):	688			
Leak Check:		-	(Pass/Eail)	
Clean PM10 Inlet:	Pass		(Pass/Fail)	
	Yes		(Yes/No)	
Weather Conditions Sampling date :	light snow			
Weather Conditions set up:	sunny			
SAMPLE RETRIEVAL Sampled by	T. Webb			
Sampled by Sampling End Date:				
Sampling End Date.	24/02/07 00:00			
Current Instrument Date:				
Current Instrument Time:	24/02/07 13:12:00 PM			
Run Status:	0k		(Ensure Run Status is OK)	
Total Sampling Time (Hours):	23.21			
Volume Sampled (m^3):	24			
Average Flow Rate (L/min):	16.7 L/min			
AmbT °C :	-2.0			
Barometric Pressure (mm Hg) :	696			
Sample Filter Temperature °C :	-0.5			
Flow Rate Coefficient of Variation (%CV):	0.1			
Weather Conditions :	overcast			
Leak Check:	Pass		(Pass/Fail)	
	1 455			
FIELD BLANK			(Once every quarter)	
Was a field blank collected	No		(Yes/No)	
Filter ID:			· · /	
Filter Batch Number:				
Current Instrument Date:				
Current Instrument Time:				
<u>C) OBSERVATIONS</u>				
Was there significant precipitation (e.g., >1/2-inch				
rain) within 24 hours prior to (or during) the sampling	No			
event?				
Describe facility operations that may affect sampling				
event:				
Comments:	power outage for approxir	nat	elv 40 minutes @ 10.05	
comments.				-
		+		

FIELD SHEET **VOLATILE ORGANIC COMPOUNDS CLEAN HARBORS CANADA INC RYLEY, ALBERTA**

A) GENERAL INFORMATION

	Organic Test 886	Sample Identification Number:
	Ryley Lift Station -Shed	Sample Canister Location:
	T.Webb	Sampled by
	Test 886	Sampler Name:
yy/mm/dd	24/02/06	Sample Date:
	24/02/08	Shipping Date to Laboratory:

Canister Type (ie. 1 Litre/6 Litre/Other): Canister Serial No.: Flow Controller Serial No.:

6L	
32265	
H/L578699/A0334390-5	

B) SAMPLE SET UP

C) OBSERVATIONS

Date: Ambient Temperature °C (inside shed): Barometric Pressure (mm Hg): Canister Pressure Gauge Reading (- Inches Hg): Sample Time:

Set up Conditions
24/02/02
20.8
688
(-)27.2
24

Sample Retrieval	
24/02/07	
14.8	
696	
(-)4	
24	

Was there significant precipitation (e.g., >1/2-inch rain) within 24 hours prior to (or during) the sampling event?

Describe general weather conditions during sampling event:

Describe facility operations that may affect sampling event:

Comments:

light snow

No

CLEAN HARBORS CANADA INC TSP (High Volume Monitoring Unit) CLEAN HARBORS CANADA INC RYLEY, ALBERTA

1. SAMPLING INFORMATION

Sample ID	Test #886					
Lab Filter ID	HVF-23-10-15					
Start Sampling	2 mm	6 dd	0 hr	2024		
Stop Sampling	2 mm	7 dd	0 hr	2024	_	
Timer Initial: Timer Final:	1582.30 1605.36			_	_	
			3.06		_	
Total Sampling Time Average Flow Rate Actual m3/min Air Volume Net TSP Weight TSP Concentration TSP Analysis Trigger Weight <u>3. OBSERVATIONS</u>	23 hr4 mincfm1.2511730.9 cubic metresgmg/m386.5 mgweight which TSP conc. >			1384 50 μg/r	minutes	
Comments:	Sample did no approximatel		24 hours, due	to power ou	tage for	
Instrument Last Calibrated:			13-Dec-23			_
 <u>3. GUIDELINES</u> Faceplate must be handtigl Flow rate must be ±10 percent 		ed flow rate.				

- Faceplate gasket must be in good condition.
- Rotameter must be free of foreign material.
- Rotameter operation must be stable.
- Sampler motor brushes must be changed every 400 hours of operation.
- TSP analysis triggers when concentration >0.05mg/m3

Sample was collected in accordance with the above guidelines.

Sampler's Signature:

	FIELD SHEET			
PM	I ₁₀ (Partisol Monitoring Unit)		
CL	EAN HARBORS CANADA INC			
	RYLEY, ALBERTA	<u> </u>	I	
A) GENERAL INFORMATION				
Filter ID:	AT76594			
PO Number:	239503			
Partisol Sampler ID/Serial Number:	2000 FRM-AE / 200FB2098	360	905	
Test number :	Particulate Test 887			
Sample Date:	24/02/12		yy/mm/dd	
Shipping Date to Laboratory:	24/02/16		,,,,,	
PM10 Analysis Trigger Weight (mg):	1.23		weight which PM10 conc.	> 50 µg/m ³
B) SAMPLING INFORMATION				
SAMPLE START				
Sampling Start Date:	24/02/12			
Sampling Start Time:	00:00			
Current Instrument Date:	24/02/07]		
Current Instrument Time:	13:24			
Ambient Temperature °C:	-1.6			
Barometric Pressure (mm Hg):	696			
Leak Check:	Pass		(Pass/Fail)	
Clean PM10 Inlet:	Yes		(Yes/No)	
Weather Conditions Sampling date :	passing clouds			
Weather Conditions set up:	overcast			
SAMPLE RETRIEVAL				
Sampled by	N. Sideroff			
Sampling End Date:	24/02/13			
Sampling End Time:	00:00			
Current Instrument Date:	24/02/15			
Current Instrument Time:	10:54			
Run Status:	Ok		(Ensure Run Status is OK)	
Total Sampling Time (Hours):	24			
Volume Sampled (m^3):	24.6			
Average Flow Rate (L/min):	16.7 L/min			
AmbT °C:	-6.4			
Barometric Pressure (mm Hg):	711			
Sample Filter Temperature °C :	-5.4			
Flow Rate Coefficient of Variation (%CV):	0.1			
Weather Conditions :	overcast			
Leak Check:	Pass		(Pass/Fail)	
FIELD BLANK	NI -		(Once every quarter)	
Was a field blank collected	No		(Yes/No)	
Filter ID: Filter Batch Number:				
Current Instrument Date: Current Instrument Time:				
current instrument riffle:		-		
<u>C) OBSERVATIONS</u>				
Was there significant precipitation (e.g., >1/2-inch				
rain) within 24 hours prior to (or during) the sampling	No			
event?				
		1		
Describe facility operations that may affect sampling				
event:				
Comments:				
Comments:				

FIELD SHEET **VOLATILE ORGANIC COMPOUNDS CLEAN HARBORS CANADA INC RYLEY, ALBERTA**

A) GENERAL INFORMATION

 Organic Test 887 Ryley Lift Station -Shed	Sample Identification Number: Sample Canister Location:	
 T.Webb	Sampled by	
Test 887	Sampler Name:	
24/02/12	Sample Date:	
24/02/16	ipping Date to Laboratory:	

Canister Type (ie. 1 Litre/6 Litre/Other): Canister Serial No.: Flow Controller Serial No.:

6L	
29017	
H/L578699/A0334390-5	

B) SAMPLE SET UP

C) OBSERVATIONS

Date: Ambient Temperature °C (inside shed): Barometric Pressure (mm Hg): Canister Pressure Gauge Reading (- Inches Hg): Sample Time:

Set up Conditions
24/02/07
14.8
696
(-)27.2
24

Sample Retrieval	
24/02/07	
11.4	
711	
(-)8.8	
24	
	_

Was there significant precipitation (e.g., >1/2-inch

rain) within 24 hours prior to (or during) the sampling event?

Describe general weather conditions during sampling event:

Describe facility operations that may affect sampling event:

Comments:

passing clouds

No

CLEAN HARBORS CANADA INC TSP (High Volume Monitoring Unit) CLEAN HARBORS CANADA INC RYLEY, ALBERTA

1. SAMPLING INFORMATION

Sample ID		Test	#887			
Lab Filter ID		HVF-23	3-10-15		_	
Start Sampling	2	12	0	2024		
	mm	dd	hr			
Stop Sampling	2	13	0	2024	_	
	mm	dd	hr			
Timer Initial:	-	160	5.36	-		
Timer Final:		162	8.88			
		23.	.52			
Total Sampling Time	23	hr	31	min	1411	minutes
Average Flow Rate		cfm				
Actual m3/min	1.251					
Air Volume	1765.4	cubic metres				
Net TSP Weight		g				
TSP Concentration		mg/m3				
TSP Analysis Trigger Weight	88.3	mg	weight whic	h TSP conc. >	> 50 μg/m ³	
3. OBSERVATIONS						

Comments:

Instrument Last Calibrated:

13-Dec-23

3. GUIDELINES

- Faceplate must be handtight.
- Flow rate must be ±10 percent of established flow rate.
- Faceplate gasket must be in good condition.
- Rotameter must be free of foreign material.
- Rotameter operation must be stable.
- Sampler motor brushes must be changed every 400 hours of operation.
- TSP analysis triggers when concentration >0.05mg/m3

Sample was collected in accordance with the above guidelines.

Sampler's Signature:

	FIELD SHEET			
	I ₁₀ (Partisol Monitoring Unit			
CL	EAN HARBORS CANADA INC			
	RYLEY, ALBERTA	Γ	1	
A) GENERAL INFORMATION				
Filter ID:	AT76595			
PO Number:	239503			
Partisol Sampler ID/Serial Number:	2000 FRM-AE / 200FB2098	360	905	
Test number :	Particulate Test 888			
Sample Date:	24/02/18		yy/mm/dd	
Shipping Date to Laboratory:	24/02/21			
PM10 Analysis Trigger Weight (mg):	1.23		weight which PM10 conc.	> 50 μg/m³
B) SAMPLING INFORMATION				
SAMPLE START				
Sampling Start Date:	24/02/18			
Sampling Start Time:	00:00			
Current Instrument Date:	24/02/15			
Current Instrument Time:	11:05			
Ambient Temperature °C:	-6.0			
Barometric Pressure (mm Hg):	710	-		
Leak Check:	Pass	-	(Pass/Fail)	
Clean PM10 Inlet:	Yes		(Yes/No)	
Weather Conditions Sampling date :	passing clouds			
Weather Conditions set up:	passing clouds	-		
SAMPLE RETRIEVAL				
SalvipLe RETRIEVAL Sampled by	N. Sideroff			
Sampled by Sampling End Date:	24/02/19			
Sampling End Date:	00:00			
Current Instrument Date:	24/02/20			
Current Instrument Time:	11:30			
Run Status:	Ok		(Ensure Run Status is OK)	
Total Sampling Time (Hours):	24			
Volume Sampled (m^3):	24.5			
Average Flow Rate (L/min):	16.7 L/min			
AmbT °C:	1.4			
Barometric Pressure (mm Hg) :	696			
Sample Filter Temperature °C :	2.0			
Flow Rate Coefficient of Variation (%CV):	0.2			
Weather Conditions :	broken clouds			
Leak Check:	Pass		(Pass/Fail)	
FIELD BLANK			(Once every quarter)	
Was a field blank collected	No		(Yes/No)	
Filter ID:				
Filter Batch Number:				
Current Instrument Date:		-		
Current Instrument Time:				
		-		
C) OBSERVATIONS				
Was there significant precipitation (e.g., >1/2-inch		-		
rain) within 24 hours prior to (or during) the sampling	No			
event?				
		1		
Describe facility operations that may affect sampling				
event:				
Comments:		1		

FIELD SHEET VOLATILE ORGANIC COMPOUNDS CLEAN HARBORS CANADA INC RYLEY, ALBERTA

A) GENERAL INFORMATION

	Organic Test 888 Ryley Lift Station -Shed	Sample Identification Number: Sample Canister Location:
		·
	T.Webb	Sampled by
	Test 888	Sampler Name:
yy/mm/dd	24/02/18	Sample Date:
	24/02/21	Shipping Date to Laboratory:

Canister Type (ie. 1 Litre/6 Litre/Other): Canister Serial No.: Flow Controller Serial No.:

6L	
A47961	
H/L578699/A0334390-5	

B) SAMPLE SET UP

Date: Ambient Temperature °C (inside shed): Barometric Pressure (mm Hg): Canister Pressure Gauge Reading (- Inches Hg): Sample Time:

Set up Conditions
24/02/15
11.4
710
(-)27.1
24

24/02/20 15.6 696 (-)5
696
(-)5
()5
24

<u>C) OBSERVATIONS</u>

Was there significant precipitation (e.g., >1/2-inch rain) within 24 hours prior to (or during) the sampling event?

Describe general weather conditions during sampling event:

Describe facility operations that may affect sampling event:

Comments:

passing clouds

No

CLEAN HARBORS CANADA INC TSP (High Volume Monitoring Unit) CLEAN HARBORS CANADA INC RYLEY, ALBERTA

1. SAMPLING INFORMATION

Sample ID		Test	#888			
Lab Filter ID		HVF-2	3-10-16		_	
Start Sampling	2	18	0	2024		
	mm	dd	hr			
Stop Sampling	2	19	0	2024	_	
	mm	dd	hr			
Timer Initial:			8.88	_		
Timer Final:			2.70			
		23	.82			
Total Sampling Time	23	3 hr	49) min	1429	minutes
Average Flow Rate		cfm				
Actual m3/min	1.251					
Air Volume	1787.9	cubic metres				
Net TSP Weight		g				
TSP Concentration		mg/m3				
TSP Analysis Trigger Weight	89.4	l mg	weight whic	h TSP conc. >	> 50 μg/m ³	

3. OBSERVATIONS

Comments:

Instrument Last Calibrated:

13-Dec-23

3. GUIDELINES

- Faceplate must be handtight.
- Flow rate must be ±10 percent of established flow rate.
- Faceplate gasket must be in good condition.
- Rotameter must be free of foreign material.
- Rotameter operation must be stable.
- Sampler motor brushes must be changed every 400 hours of operation.
- TSP analysis triggers when concentration >0.05mg/m3

Sample was collected in accordance with the above guidelines.

Sampler's Signature:

	FIELD SHEET			
РМ	10 (Partisol Monitoring Unit))		
CLI	EAN HARBORS CANADA INC			
	RYLEY, ALBERTA	r –	1	
A) GENERAL INFORMATION				
Filter ID:	AT79744			
PO Number:	239503	-		
Partisol Sampler ID/Serial Number:	2000 FRM-AE / 200FB2098		005	
Test number :	Particulate Test 889	000	303	
Sample Date:	24/02/24		yy/mm/dd	
Shipping Date to Laboratory:	24/02/24		yy/mm/du	
PM10 Analysis Trigger Weight (mg):	1.20		weight which PM10 conc.	$> 50 \mu g/m^3$
	1.20			2 50 μg/11
B) SAMPLING INFORMATION				
SAMPLE START				
Sampling Start Date:	24/02/24			
Sampling Start Time:	00:00			
Current Instrument Date:	24/02/20	-		
Current Instrument Time:	11:36			
Ambient Temperature °C:	0.9			
Barometric Pressure (mm Hg):	696			
Leak Check:			(Pass/Eail)	
Clean PM10 Inlet:	Pass	-	(Pass/Fail)	
	Yes		(Yes/No)	
Weather Conditions Sampling date :	partly sunny	-		
Weather Conditions set up:	broken clouds	<u> </u>		
SAMPLE RETRIEVAL	T Mahh			
Sampled by	T. Webb			
Sampling End Date:	24/02/25	-		
Sampling End Time:	00:00			
Current Instrument Date:	24/02/28			
Current Instrument Time:	15:12		(Encure Due Status is OK)	
Run Status: Total Sampling Time (Hours):	Ok		(Ensure Run Status is OK)	
Volume Sampled (m^3):	24			
	24.0			
Average Flow Rate (L/min): AmbT °C :	16.7 L/min			
Barometric Pressure (mm Hg) :	-14.3			
	691			
Sample Filter Temperature °C :	-10.7			
Flow Rate Coefficient of Variation (%CV): Weather Conditions :	0			
	partly cloudy			
Leak Check:	Pass		(Pass/Fail)	
FIELD BLANK	NI -		(Once every quarter)	
Was a field blank collected	No		(Yes/No)	
Filter ID:				
Filter Batch Number:		-		
Current Instrument Date:		-		
Current Instrument Time:				
		-		
<u>C) OBSERVATIONS</u>				
Was there significant precipitation (e.g., >1/2-inch rain) within 24 hours prior to (or during) the sampling	No			
rain) within 24 hours prior to (or during) the sampling event?				
		-		
Describe facility operations that may affect sampling		-		
event:				
event.		-		
		-		
Comments:				

FIELD SHEET VOLATILE ORGANIC COMPOUNDS CLEAN HARBORS CANADA INC RYLEY, ALBERTA

A) GENERAL INFORMATION

_	Organic Test 889	Sample Identification Number:
_	Ryley Lift Station -Shed	Sample Canister Location:
	T.Webb	Sampled by
	Test 889	Sampler Name:
yy/mm/dd	24/02/24	Sample Date:
	24/03/01	Shipping Date to Laboratory:

Canister Type (ie. 1 Litre/6 Litre/Other): Canister Serial No.: Flow Controller Serial No.:

6L	
29030	
H/L578699/A0334390-5	

B) SAMPLE SET UP

C) OBSERVATIONS

Date: Ambient Temperature °C (inside shed): Barometric Pressure (mm Hg): Canister Pressure Gauge Reading (- Inches Hg): Sample Time:

Set up Conditions
24/02/20
15.6
696
(-)27.4
24

Sample Retrieval	
24/02/28	
10.4	
691	
(-)6	
24	

No

partly sunny

Was there significant precipitation (e.g., >1/2-inch rain) within 24 hours prior to (or during) the sampling event?

Describe general weather conditions during sampling event:

Describe facility operations that may affect sampling event:

CLEAN HARBORS CANADA INC TSP (High Volume Monitoring Unit) CLEAN HARBORS CANADA INC RYLEY, ALBERTA

1. SAMPLING INFORMATION

Sample ID						
Lab Filter ID		HVF-2				
Start Sampling	2	24	0	2024		
	mm	dd	hr			
Stop Sampling	2	25	0	2024	_	
	mm	dd	hr			
Timer Initial:		16	52.70	_		
Timer Final:		16	76.57			
		2	3.87			
Total Sampling Time	23	3 hr	5	2 min	1432	minutes
Average Flow Rate		 cfm				
Actual m3/min	1.251	L				
Air Volume	1791.7	cubic metres	5			
Net TSP Weight		g				
TSP Concentration		mg/m3				
TSP Analysis Trigger Weight	89.6	5 mg	weight whic	ch TSP conc. >	> 50 μg/m ³	

3. OBSERVATIONS

Comments:

Instrument Last Calibrated:

13-Dec-23

3. GUIDELINES

- Faceplate must be handtight.
- Flow rate must be ±10 percent of established flow rate.
- Faceplate gasket must be in good condition.
- Rotameter must be free of foreign material.
- Rotameter operation must be stable.
- Sampler motor brushes must be changed every 400 hours of operation.
- TSP analysis triggers when concentration >0.05mg/m3

Sample was collected in accordance with the above guidelines.

Sampler's Signature:

FIELD SHEET TSP (High Volume Monitoring Unit) CLEAN HARBORS CANADA INC RYLEY, ALBERTA

1. SAMPLING INFORMATION

2. SAMPLING INFORMATION

Sample ID		-	est # 111		_	Sample ID			est # 111		_
Lab Filter ID		HVF-22	-04-019			Lab Filter ID		HV-22	-12-10		
Start Sampling	2	1	15	2024		Start Sampling	2	1	15	2024	
	mm	dd	hr				mm	dd	hr		
Stop Sampling	3	1	16	2024		Stop Sampling	3	1	16	2024	_
	mm	dd	hr				mm	dd	hr		
Timer Initial:		329	7.97			Timer Initial:		267	3.72		
Timer Final:		334	1.55		_	Timer Final:		269	9.84		_
Total Sampling Time	43	hr	35	5 min	2615	Total Sampling Time	26	hr		7 min	1567
Average Flow Rate		cfm		_		Average Flow Rate		cfm			
Actual m3/min	1.252					Actual m3/min	1.251				
Air Volume	3274.0	cubic metre	es			Air Volume	1960.3	cubic metre	es		
Net TSP Weight		g				Net TSP Weight		g			
TSP Concentration		mg/m3				TSP Concentration		mg/m3			
3. OBSERVATIONS											

Comments:

Instrument Last Calibrated:

13-Dec-23

3. GUIDELINES

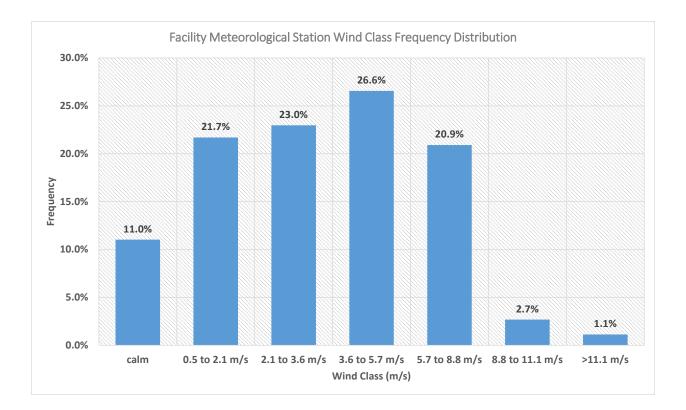
- Faceplate must be handtight. -
- Flow rate must be ±10 percent of established flow rate. -
- Faceplate gasket must be in good condition. -
- Rotameter must be free of foreign material. -
- Rotameter operation must be stable. -
- Sampler motor brushes must be changed every 400 hours of operation. -

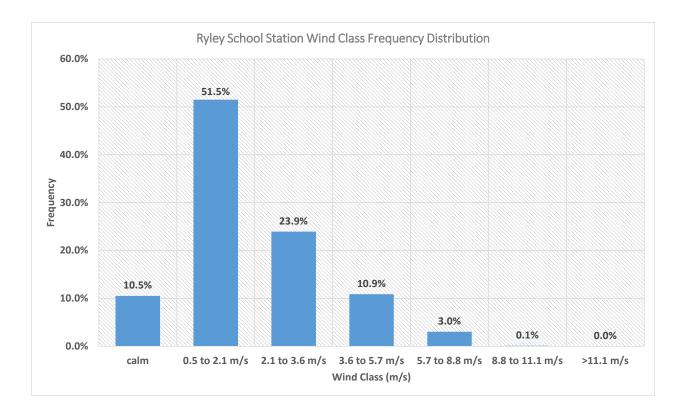
Sample was collected in accordance with the above guidelines.

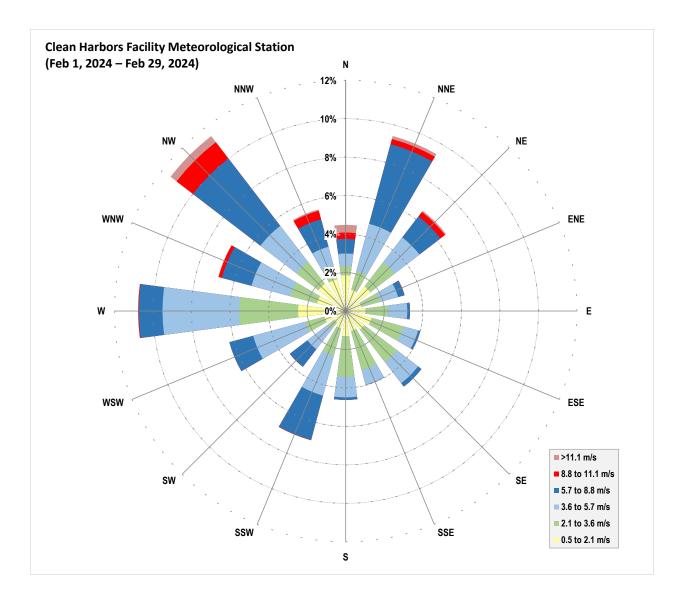
Sampler's Signature:

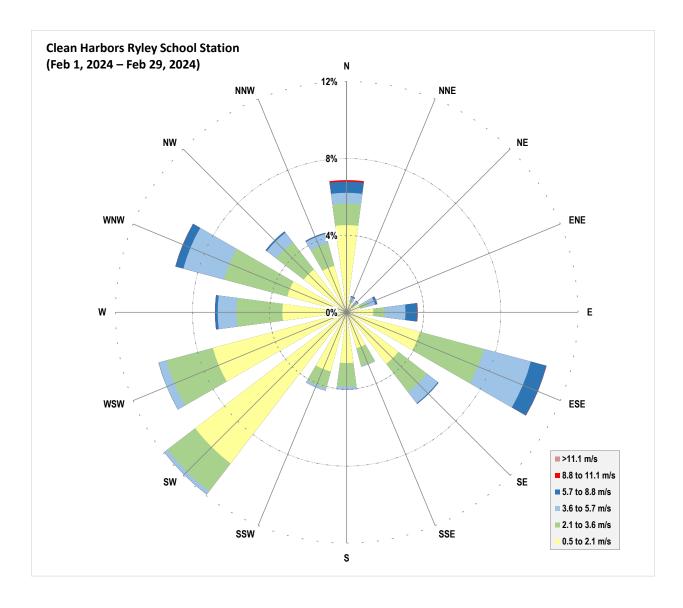
Stan Yuka

Appendix C Wind Class Frequency Distribution Graphs and Wind Rose









Appendix D Chain of Custody Forms and Laboratory Analytical Reports

Clean Harbors Monthly Ambient Air Monitoring Report February 2024



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

RESULTS:	Todd Webb			CLIENT SAMPLE ID		Matrix	
	Clean Harbors E	nvironmental	Ryley Fa	cility Test # 111 HVF-22-04	1-19	Air Filter	-
	PO Box 390		CANISTER ID:				
	2 km N of Hwy	14 on Sec Road 854 50114 RR 173	PRIORITY:	Normal			
	Ryley		DESCRIPTION	:			
	AB	TOB 4A0					
INVOICE:	Stephanie Den	nis	DATE SAMPLE	D: 01-Feb-24 0:0	00 DATE RECE	IVED: 06-N	/lar-24
	PO Box 390		REPORT CREA	TED: 22-Mar-24	REPORT NU	JMBER: 2403	30029
		14 on Sec Road 854 50114 RR 173			VERSION:	Vers	ion 01
	Ryley						
	AB	T0B 4A0					
Lab ID	Parameter		Qualifier	Result Units	RDL	Method	Analysis Date
24030029-0	001 Antimony			30.6 ng/Filter	0.30	AC-021	16-Mar-24
24030029-0	001 Arsenic		K, T, U	< 0.30 ng/Filter	0.30	AC-021	16-Mar-24
24030029-0	001 Barium			14500000 ng/Filter	300	AC-021	16-Mar-24
24030029-0	001 Beryllium			62.5 ng/Filter	0.60	AC-021	16-Mar-24
24030029-0	001 Boron			16100000 ng/Filter	600	AC-021	16-Mar-24
24030029-0	001 Cadmium			1290 ng/Filter	0.80	AC-021	16-Mar-24
24030029-0	001 Chromium			2820 ng/Filter	20	AC-021	16-Mar-24
24030029-0	001 Cobalt			407 ng/Filter	0.50	AC-021	16-Mar-24
24030029-0	001 Copper			165000 ng/Filter	20	AC-021	16-Mar-24
24030029-0	001 Iron			656000 ng/Filter	80	AC-021	16-Mar-24
24030029-0	001 Lead			7070 ng/Filter	0.70	AC-021	16-Mar-24
24030029-0	001 Manganese	2		39300 ng/Filter	1.0	AC-021	16-Mar-24
24030029-0	001 Mercury		K, T, U	< 0.70 ng/Filter	0.70	AC-021	16-Mar-24
24030029-0	001 Nickel			2950 ng/Filter	5.0	AC-021	16-Mar-24
24030029-0	001 Selenium			158 ng/Filter	4.0	AC-021	16-Mar-24
24030029-0	001 Silver			138 ng/Filter	0.50	AC-021	16-Mar-24
24030029-0	001 Thallium			67.1 ng/Filter	0.20	AC-021	16-Mar-24

Report certified by: Rebecca Dasilva, Account Coordinator

Date: March 22, 2024

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <u>https://directory.cala.ca//</u>

Cinno	Tool Car) Bag 4000 greville, Alberta nada T9C 1T4 80) 632-8211		ENVIRONMI TEST REI	ENTAL ANALYTICAL S	ERVICES		Page 2 of 9
	CLIENT SAI	MPLE ID		CANISTER ID	Matrix		DATE SAMPL	ED
Ryley	Facility Test # 3	111 HVF-22-04	-19		Air Filter	r	01-Feb-24 0	:00
DESCRIPTION: REPORT NUMBI	ER: 2403002	9	REPORT CREATED:	22-Mar-24			VERSION:	Version 01
Lab ID	Parameter			Qualifier	Result Units	RDL	Method	Analysis Date
24030029-001	Tin				334 ng/Filter	0.20	AC-021	16-Mar-24
24030029-001	Uranium				255 ng/Filter	0.200	AC-021	16-Mar-24
24030029-001	Vanadium				1540 ng/Filter	0.40	AC-021	16-Mar-24
24030029-001	Zinc				10800000 ng/Filter	1000	AC-021	16-Mar-24
24030029-001	Zirconium				29800 ng/Filter	1.0	AC-021	16-Mar-24
24030029-001	Particulate W	Veight			62.5 mg	0.1	Research	07-Mar-24

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <u>https://directory.cala.ca//</u>

6	PO Bag 4000 Vegreville, Alberta		ENVIRONM	ENTAL ANALYTICAL S	ERVICES			
	Canada T9C 1T4 (780) 632-8211		TEST RE	PORT			Page 3 of 9	
	CLIENT SAMPLE ID		CANISTER ID Matrix			DATE SAMPLED		
Ryley	School Test # 111 HVF-22-	12-10		Air Filte	r	01-Feb-24 C	:00	
DESCRIPTION:								
REPORT NUMBE	ER: 24030029	REPORT CREATED:	22-Mar-24			VERSION:	Version 01	
Lab ID	Parameter		Qualifier	Result Units	RDL	Method	Analysis Date	
24030029-002	Antimony		K, T, U	< 0.30 ng/Filter	0.30	AC-021	16-Mar-24	
24030029-002	Arsenic		K, T, U	< 0.30 ng/Filter	0.30	AC-021	16-Mar-24	
24030029-002	Barium			13000000 ng/Filter	300	AC-021	16-Mar-24	
24030029-002	Beryllium			6.28 ng/Filter	0.60	AC-021	16-Mar-24	
24030029-002	Boron			14100000 ng/Filter	600	AC-021	16-Mar-24	
24030029-002	Cadmium			269 ng/Filter	0.80	AC-021	16-Mar-24	
24030029-002	Chromium			1640 ng/Filter	20	AC-021	16-Mar-24	
24030029-002	Cobalt			190 ng/Filter	0.50	AC-021	16-Mar-24	
24030029-002	Copper			208000 ng/Filter	20	AC-021	16-Mar-24	
24030029-002	Iron			441000 ng/Filter	80	AC-021	16-Mar-24	
24030029-002	Lead			1040 ng/Filter	0.70	AC-021	16-Mar-24	
24030029-002	Manganese			16000 ng/Filter	1.0	AC-021	16-Mar-24	
24030029-002	Mercury		K, T, U	< 0.70 ng/Filter	0.70	AC-021	16-Mar-24	
24030029-002	Nickel			2240 ng/Filter	5.0	AC-021	16-Mar-24	
24030029-002	Selenium			65.0 ng/Filter	4.0	AC-021	16-Mar-24	
24030029-002	Silver			122 ng/Filter	0.50	AC-021	16-Mar-24	
24030029-002	Thallium			57.0 ng/Filter	0.20	AC-021	16-Mar-24	
24030029-002	Tin			155 ng/Filter	0.20	AC-021	16-Mar-24	
24030029-002	Uranium			234 ng/Filter	0.200	AC-021	16-Mar-24	
24030029-002	Vanadium			1370 ng/Filter	0.40	AC-021	16-Mar-24	
24030029-002	Zinc			10100000 ng/Filter	1000	AC-021	16-Mar-24	
24030029-002	Zirconium			32400 ng/Filter	1.0	AC-021	16-Mar-24	
24030029-002	Particulate Weight			31.5 mg	0.1	Research	07-Mar-24	

Report certified by: Andrea Conner, Admin Assistant On behalf of: Adam Malcolm, Manager, Chemical Testing

Date: March 22, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <u>https://directory.cala.ca//</u>

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Revision History



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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<u>Methods</u>

Method	Description
AC-021	Elemental Analysis Methodology of Filter-collected Airborne Particulate Matter (PM) by ICP-MS
Research	Research method

List of Analytical Method IDs within InnoTech's ISO/IEC 17025:2017 CALA Scope of Accreditation

Method I	Description
AC-013	Mercury in Waters by Cold Vapor Atomic Fluorescence Detection (CVAFS)
AC-020	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-021	Elemental Analysis Methodology of Filter-collected Airborne Particulate Matter (PM) by ICP-MS
AC-026	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-035	Analysis of Glyphosate, Aminomethylphosphonic Acid and Glufosinate in Water
AC-038	Trace Metal Analysis of Water Samples by ICP-MS
AC-048	Specific Conductance (Conductivity Meter Method)
AC-049	pH (Meter Method)
AC-054	Alkalinity Total and Phenolphthalein
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
AC-060	Trace Metal Analysis of Soil Sediment and Industrial Waste Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-061	Trace Metal Analysis for Biological Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-065	Analysis of Naphthenic Acids in Water by HPLC-Orbitrap-MS analysis
AC-074	Pesticides in Water
AC-079	Alkylated PAH in Soil and Sediment
AC-080	Alkylated PAH in Water (SPE Extraction)
NA-006	Determination of BTEX, F1 Hydrocarbons and F2, F3 and F4 Hydrocarbons in Water
NIA 024	An electric of Declared Culfur Concernments in Air

NA-024 Analysis of Reduced Sulfur Compounds in Air



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Qualifiers

Data Qualifier	Translation
В	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
К	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
Ν	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
Т	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Order Comments

24030029

Send results to Stan Yuha. Quote QT140005



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Sample Comments



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.

	nolech	Canada T9C 1T4 (780) 632-8211	TEST REPO	RT		I	Page 1 of 11
	ALBERTA						-
ESULTS:	Todd Webb			C LIENT SAMPLE ID st#: 886 - HVF-23-10-14		Matrix Air Filter	
	PO Box 390	rs Environmental		51#. 000 - 117-23-10-14		All Filler	
		vy 14 on Sec Road 854 50114 RR 173	CANISTER ID: PRIORITY: No	ormal			
	Ryley	.,		HiVol Filter			
	AB	TOB 4A0	DESCRIPTION:				
VOICE:	Stephanie De	nnis	DATE SAMPLED:		DATE RECEIV	/ED: 09-F	eb-24
	PO Box 390		REPORT CREATE	D: 20-Feb-24	REPORT NUN	/IBER: 2402	0064
	2 km N of Hv	vy 14 on Sec Road 854 50114 RR 173			VERSION	Vers	sion 01
	Ryley						
	AB	TOB 4A0					
b ID	Paramete	er	Qualifier	Result Units	RDL	Method	Analysis Dat
020064-0	03 Particulat	e Weight		21.8 mg	0.1	Research	14-Feb-24

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at https://directory.cala.ca//

-

Vegreville, Alberta Canada T9C 1T4				DERVICES		
(780) 632-8211		TEST REPC	DRT			Page 2 of 11
CLIENT SAMPLE ID PM10 Test #: 886 - AT6596	C	ANISTER ID	Matrix Air Filte		DATE SAMPLE 06-Feb-24 0	E D :00
ESCRIPTION: PM10 Filter EPORT NUMBER: 24020064	REPORT CREATED:	20-Feb-24			VERSION	Version 01
ab ID Parameter		Qualifier	Result Units	RDL	Method	Analysis Date
1020064-002 Particulate Weight			0.215 mg	0.004	AC-029	12-Feb-24
Report certified by: Andrea Conner, Admin Assistant	On behalf of: A	Adam Malcolm, Manager, C	Chemical Testing			

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <u>https://directory.cala.ca//</u>

6	PO Bag 4000 Vegreville, Alberta	ENVIRONME	NTAL ANALYTICAL SEF	RVICES		
	Canada T9C 1T4 (780) 632-8211	TEST REPO	DRT			Page 3 of 11
	CLIENT SAMPLE ID	CANISTER ID	Matrix		DATE SAMPL	D
VO	Cs and TNMOC Test #: 886	32265	Ambient Air		06-Feb-24 0	:00
DESCRIPTION:	Canister					
REPORT NUMB	ER: 24020064 REPORT CREATED:	20-Feb-24			VERSION	Version 01
Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
24020064-001	Total Non-Methane Organic Carbon	K, T, U	< 0.08 ppmv	0.08	NA-028	16-Feb-24
24020064-001	1,2,3-Trimethylbenzene	K, T, U	< 0.08 ppbv	0.08	AC-058	13-Feb-24
24020064-001	1,2,4-Trimethylbenzene	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24
24020064-001	1,3,5-Trimethylbenzene	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24
24020064-001	1-Butene/Isobutylene	K, T, U	< 0.10 ppbv	0.10	AC-058	13-Feb-24
24020064-001	1-Hexene/2-Methyl-1-pentene	K, T, U	<0.12 ppbv	0.12	AC-058	13-Feb-24
24020064-001	1-Pentene	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24
24020064-001	2,2,4-Trimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	2,2-Dimethylbutane	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	2,3,4-Trimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	2,3-Dimethylbutane	K, T, U	< 0.15 ppbv	0.15	AC-058	13-Feb-24
24020064-001	2,3-Dimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	2,4-Dimethylpentane	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24
24020064-001	2-Methylheptane	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	2-Methylhexane	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24
24020064-001	2-Methylpentane	I	0.09 ppbv	0.03	AC-058	13-Feb-24
24020064-001	3-Methylheptane	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24
24020064-001	3-Methylhexane	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	3-Methylpentane	I	0.05 ppbv	0.03	AC-058	13-Feb-24
24020064-001	Benzene	I	0.10 ppbv	0.05	AC-058	13-Feb-24
24020064-001	cis-2-Butene	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24
24020064-001	cis-2-Pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	Cyclohexane	K, T, U	< 0.07 ppbv	0.07	AC-058	13-Feb-24
24020064-001	Cyclopentane	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	Ethylbenzene	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 20, 2024

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at https://directory.cala.ca//

6	PO Bag 4000 Vegreville, Alberta	ENVIRONME	NTAL ANALYTICAL S	ERVICES		
	Canada T9C 1T4 (780) 632-8211	TEST REPO	ORT			Page 4 of 11
CLIENT SAMPLE ID VOCs and TNMOC Test #: 886		CANISTER ID 32265	Matrix Ambient Air		DATE SAMPLED 06-Feb-24 0:00	
DESCRIPTION:	Canister					
REPORT NUMBE	ER: 24020064 REPORT CREATE	D: 20-Feb-24			VERSION	Version 01
Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
24020064-001	Isobutane		0.90 ppbv	0.05	AC-058	13-Feb-24
24020064-001	Isopentane		0.38 ppbv	0.07	AC-058	13-Feb-24
24020064-001	Isoprene	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	Isopropylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	13-Feb-24
24020064-001	m,p-Xylene	K, T, U	< 0.07 ppbv	0.07	AC-058	13-Feb-24
24020064-001	m-Diethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	m-Ethyltoluene	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24
24020064-001	Methylcyclohexane	I	0.05 ppbv	0.03	AC-058	13-Feb-24
24020064-001	Methylcyclopentane	K, T, U	< 0.08 ppbv	0.08	AC-058	13-Feb-24
24020064-001	n-Butane		1.20 ppbv	0.03	AC-058	13-Feb-24
24020064-001	n-Decane	K, T, U	< 0.10 ppbv	0.10	AC-058	13-Feb-24
24020064-001	n-Dodecane	K, T, U	< 0.5 ppbv	0.5	AC-058	13-Feb-24
24020064-001	n-Heptane	K, T, U	<0.07 ppbv	0.07	AC-058	13-Feb-24
24020064-001	n-Hexane	I	0.11 ppbv	0.05	AC-058	13-Feb-24
24020064-001	n-Octane	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	n-Pentane		0.30 ppbv	0.07	AC-058	13-Feb-24
24020064-001	n-Propylbenzene	K, T, U	< 0.10 ppbv	0.10	AC-058	13-Feb-24
24020064-001	n-Undecane	K, T, U	< 0.8 ppbv	0.8	AC-058	13-Feb-24
24020064-001	n-Nonane	K, T, U	< 0.07 ppbv	0.07	AC-058	13-Feb-24
24020064-001	o-Ethyltoluene	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	o-Xylene	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24
24020064-001	p-Diethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24
24020064-001	p-Ethyltoluene	K, T, U	< 0.07 ppbv	0.07	AC-058	13-Feb-24
24020064-001	Styrene	K, T, U	< 0.07 ppbv	0.07	AC-058	13-Feb-24
24020064-001	Toluene	K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 20, 2024

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

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Cinno	Vegre Tool Canad	ng 4000 ville, Alberta da T9C 1T4 632-8211	ENVIRONMENTAL ANALYTICAL SERVICES TEST REPORT				Page 5 of 11		
_	CLIENT SAME Cs and TNMOC		CANISTER ID 32265	Matrix Ambient /	Air	DATE SAMPLI 06-Feb-24 0	E D :00		
DESCRIPTION: REPORT NUMBE	Canister ER: 24020064	REPORT CREATED:	20-Feb-24			VERSION	Version 01		
Lab ID	Parameter		Qualifier	Result Units	RDL	Method	Analysis Date		
24020064-001	trans-2-Butene		K, T, U	< 0.05 ppbv	0.05	AC-058	13-Feb-24		
24020064-001	trans-2-Penten	e	K, T, U	< 0.03 ppbv	0.03	AC-058	13-Feb-24		

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Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Revision History

Order ID	Ver	Date	Reason
24020064	01	20-Feb-24	Report created



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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<u>Methods</u>

Method	Description
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
NA-028	Determination of Total Non-methane Hydrocarbons and Total Hydrocarbons in Ambient Air by Gas Chromatography Flame Ionization Detector
Research	Research method
Lis	t of Analytical Method IDs within InnoTech's ISO/IEC 17025:2017 CALA Scope of Accreditation
Vethod ID	Description
AC-013	Mercury in Waters by Cold Vapor Atomic Fluorescence Detection (CVAFS)
AC-020	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-021	Elemental Analysis Methodology of Filter-collected Airborne Particulate Matter (PM) by ICP-MS
AC-026	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-035	Analysis of Glyphosate, Aminomethylphosphonic Acid and Glufosinate in Water
AC-038	Trace Metal Analysis of Water Samples by ICP-MS
AC-048	Specific Conductance (Conductivity Meter Method)
AC-049	pH (Meter Method)
AC-054	Alkalinity Total and Phenolphthalein
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
AC-060	Trace Metal Analysis of Soil Sediment and Industrial Waste Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-061	Trace Metal Analysis for Biological Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-065	Analysis of Naphthenic Acids in Water by HPLC-Orbitrap-MS analysis
AC-074	Pesticides in Water
AC-079	Alkylated PAH in Soil and Sediment
AC-080	Alkylated PAH in Water (SPE Extraction)
NA-006	Determination of BTEX, F1 Hydrocarbons and F2, F3 and F4 Hydrocarbons in Water
NA-024	Analysis of Reduced Sulfur Compounds in Air



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Qualifiers

Data Qualifier	Translation
В	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
К	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
Ν	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
Т	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Order Comments

24020064

Project ID: Test #: 886. Report also to Stan Yuha.



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Sample Comments



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.

Yin	Teak	Vegreville, Alberta Canada T9C 1T4		AL ANALYTICAL S			
	ALBERTA	(780) 632-8211	TEST REPOR	Т			Page 1 of 11
SULTS:		s Environmental	HiVol Test # 8	IENT SAMPLE ID 87 - Filter # HVF-23	-10-15	Matrix Air Filter	
	Ryley	y 14 on Sec Road 854 50114 F		^{mal} Hi-Vol Filter			
VOICE:	AB Stephanie Der PO Box 390	T0B 4A0 nnis	DATE SAMPLED: REPORT CREATED	12-Feb-24 0:0 : 27-Feb-24	DO DATE RECE REPORT NU		eb-24
		ry 14 on Sec Road 854 50114 F T0B 4A0	R 173		VERSION	Vers	sion 01
b ID 020131-0	Paramete	r	Qualifier	Result Units 59.0 mg	RDL 0.1	Method Research	Analysis Dat 21-Feb-24
eport certifi	ied by: Andrea (Conner, Admin Assistant On be	half of: Adam Malcolm, Manager, Cher	nical Testing			

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <u>https://directory.cala.ca//</u>

Canada T9C 1T4 (780) 632-8211		TEST REPO	ORT		1	Page 2 of 11
ALBERTA CLIENT SAMPLE ID PM10 Test # 887 - Filter # AT76594		CANISTER ID Matrix Air Filter			DATE SAMPLE 12-Feb-24 0	
SCRIPTION:PM10 FilterPORT NUMBER:24020131	REPORT CREATED:	27-Feb-24			VERSION	Version 01
DID Parameter		Qualifier	Result Units	RDL	Method	Analysis Date
020131-002 Particulate Weight			0.321 mg	0.004	AC-029	21-Feb-24

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6	PO Bag 4000 Vegreville, Alberta	ENVIRONME	NTAL ANALYTICAL S	ERVICES			
	Canada T9C 1T4 (780) 632-8211	TEST REPO	ORT			Page 3 of 11	
VO	CLIENT SAMPLE ID VOCs and TNMOC Test # 887		Matrix Ambient		DATE SAMPLED 12-Feb-24 0:00		
DESCRIPTION:	Air Canister						
REPORT NUMB	ER: 24020131 REPORT CREATED:	27-Feb-24			VERSION	Version 01	
Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date	
24020131-001	Total Non-Methane Organic Carbon	K, T, U	< 0.09 ppmv	0.09	NA-028	20-Feb-24	
24020131-001	1,2,3-Trimethylbenzene	K, T, U	< 0.09 ppbv	0.09	AC-058	21-Feb-24	
24020131-001	1,2,4-Trimethylbenzene	I	0.09 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	1,3,5-Trimethylbenzene	K, T, U	< 0.05 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	1-Butene/Isobutylene	K, T, U	< 0.11 ppbv	0.11	AC-058	21-Feb-24	
24020131-001	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.12 ppbv	0.12	AC-058	21-Feb-24	
24020131-001	1-Pentene	K, T, U	< 0.05 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	2,2,4-Trimethylpentane	I	0.05 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	2,2-Dimethylbutane	K, T, U	< 0.04 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	2,3,4-Trimethylpentane	I	0.07 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	2,3-Dimethylbutane	K, T, U	< 0.16 ppbv	0.16	AC-058	21-Feb-24	
24020131-001	2,3-Dimethylpentane	I	0.05 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	2,4-Dimethylpentane	K, T, U	< 0.05 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	2-Methylheptane	I	0.06 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	2-Methylhexane	I	0.14 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	2-Methylpentane		0.36 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	3-Methylheptane	K, T, U	< 0.05 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	3-Methylhexane	I	0.15 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	3-Methylpentane		0.19 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	Benzene	I	0.25 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	cis-2-Butene	K, T, U	< 0.05 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	cis-2-Pentene	K, T, U	< 0.04 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	Cyclohexane	I	0.18 ppbv	0.07	AC-058	21-Feb-24	
24020131-001	Cyclopentane	I	0.07 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	Ethylbenzene		0.73 ppbv	0.05	AC-058	21-Feb-24	

Report certified by:Andrea Conner, Admin AssistantDate:February 27, 2024

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

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6	PO Bag 4000 Vegreville, Alberta		ENVIRONMEN	ITAL ANALYTICAL	SERVICES			
	Canada T9C 1T4 (780) 632-8211		TEST REPC	DRT			Page 4 of 11	
	CLIENT SAMPLE ID		CANISTER ID	Matr	·ix	ix DATE SAMPLED		
VO	Cs and TNMOC Test # 887		29017	Ambier	nt Air	12-Feb-24 0	:00	
DESCRIPTION:	Air Canister							
REPORT NUMBE	R: 24020131	REPORT CREATED:	27-Feb-24			VERSION	Version 01	
Lab ID	Parameter		Qualifier	Result Units	RDL	Method	Analysis Date	
24020131-001	Isobutane			0.74 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	Isopentane			0.75 ppbv	0.07	AC-058	21-Feb-24	
24020131-001	Isoprene		К, Т, U	< 0.04 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	Isopropylbenzene		K, T, U	< 0.07 ppbv	0.07	AC-058	21-Feb-24	
24020131-001	m,p-Xylene			2.58 ppbv	0.07	AC-058	21-Feb-24	
24020131-001	m-Diethylbenzene		K, T, U	< 0.04 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	m-Ethyltoluene		I	0.06 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	Methylcyclohexane			0.22 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	Methylcyclopentane			0.24 ppbv	0.09	AC-058	21-Feb-24	
24020131-001	n-Butane			1.43 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	n-Decane		K, T, U	< 0.11 ppbv	0.11	AC-058	21-Feb-24	
24020131-001	n-Dodecane		K, T, U	< 0.5 ppbv	0.5	AC-058	21-Feb-24	
24020131-001	n-Heptane		I	0.24 ppbv	0.07	AC-058	21-Feb-24	
24020131-001	n-Hexane			0.55 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	n-Octane		I	0.10 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	n-Pentane			0.76 ppbv	0.07	AC-058	21-Feb-24	
24020131-001	n-Propylbenzene		K, T, U	<0.11 ppbv	0.11	AC-058	21-Feb-24	
24020131-001	n-Undecane		K, T, U	< 0.9 ppbv	0.9	AC-058	21-Feb-24	
24020131-001	n-Nonane		I	0.13 ppbv	0.07	AC-058	21-Feb-24	
24020131-001	o-Ethyltoluene		K, T, U	< 0.04 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	o-Xylene			0.67 ppbv	0.05	AC-058	21-Feb-24	
24020131-001	p-Diethylbenzene		K, T, U	< 0.04 ppbv	0.04	AC-058	21-Feb-24	
24020131-001	p-Ethyltoluene		K, T, U	< 0.07 ppbv	0.07	AC-058	21-Feb-24	
24020131-001	Styrene		K, T, U	< 0.07 ppbv	0.07	AC-058	21-Feb-24	
24020131-001	Toluene			6.76 ppbv	0.05	AC-058	21-Feb-24	

Report certified by: Andrea Conner, Admin Assistant

On behalf of: Adam Malcolm, Manager, Chemical Testing

Date: February 27, 2024

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Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

	Tool Canada	g 4000 ville, Alberta a T9C 1T4 532-8211	ENVIRONMENTAL ANALYTICAL SERVICES TEST REPORT				Page 5 of 11
VO DESCRIPTION:	CLIENT SAMP Cs and TNMOC Air Caniste	5 Test # 887	CANISTER ID 29017	Matrix Ambient		DATE SAMPLED 12-Feb-24 0:00	
REPORT NUMBI		REPORT CREA	TED: 27-Feb-24			VERSION	Version 01
Lab ID	Parameter		Qualifier	Result Units	RDL	Method	Analysis Date
24020131-001	trans-2-Butene		K, T, U	< 0.05 ppbv	0.05	AC-058	21-Feb-24
24020131-001	trans-2-Pentene	2	K, T, U	< 0.04 ppbv	0.04	AC-058	21-Feb-24

Report certified by: Andrea Conner, Admin Assistant Date: February 27, 2024

On behalf of: Adam Malcolm, Manager, Chemical Testing

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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Revision History

Order ID	Ver	Date	Reason
24020131	01	27-Feb-24	Report created



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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<u>Methods</u>

Method	Description
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
NA-028	Determination of Total Non-methane Hydrocarbons and Total Hydrocarbons in Ambient Air by Gas Chromatography Flame Ionization Detector
Research	Research method
Lis	t of Analytical Method IDs within InnoTech's ISO/IEC 17025:2017 CALA Scope of Accreditation
Vethod ID	Description
AC-013	Mercury in Waters by Cold Vapor Atomic Fluorescence Detection (CVAFS)
AC-020	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-021	Elemental Analysis Methodology of Filter-collected Airborne Particulate Matter (PM) by ICP-MS
AC-026	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-035	Analysis of Glyphosate, Aminomethylphosphonic Acid and Glufosinate in Water
AC-038	Trace Metal Analysis of Water Samples by ICP-MS
AC-048	Specific Conductance (Conductivity Meter Method)
AC-049	pH (Meter Method)
AC-054	Alkalinity Total and Phenolphthalein
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
AC-060	Trace Metal Analysis of Soil Sediment and Industrial Waste Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-061	Trace Metal Analysis for Biological Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-065	Analysis of Naphthenic Acids in Water by HPLC-Orbitrap-MS analysis
AC-074	Pesticides in Water
AC-079	Alkylated PAH in Soil and Sediment
AC-080	Alkylated PAH in Water (SPE Extraction)
NA-006	Determination of BTEX, F1 Hydrocarbons and F2, F3 and F4 Hydrocarbons in Water
NA-024	Analysis of Reduced Sulfur Compounds in Air



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Qualifiers

Data Qualifier	Translation
В	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
К	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
Ν	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
Т	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Order Comments

24020131

Test # 887. Send results to Stan Yuha.



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Sample Comments



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.

		Vegreville, Alberta					
CIn	ALBERTA	Canada T9C 1T4 (780) 632-8211	TEST REPC	DRT			Page 1 of 11
RESULTS:	PO Box 390	s Environmental y 14 on Sec Road 854 50114 R	Hi-Vol T CANISTER ID:	CLIENT SAMPLE ID Fest # 889 - HVF-23-1 ormal	0-17	Matrix Air Filte	
NVOICE:	Ryley AB Stephanie De PO Box 390	TOB 4A0	DESCRIPTION: DATE SAMPLED REPORT CREATE	Hi-Vol Filter 24-Feb-24	0:00 DATE RE REPORT VERSION	NUMBER: 240	Mar-24)30017 rsion 01
ab ID	Paramet		Qualifier	Result Units	RDL	Method	Analysis Dat
	003 Particula	te Weight		40.0 mg	0.1	Research	05-Mar-24
				40.0 mg	0.1	Research	

Canada T9C 1T4 (780) 632-8211		TEST REP	ORT			Page 2 of 11
ALBERTA CLIENT SAMPLE ID PM10 Test # 889 - Filter # AT9744		CANISTER ID		Matrix Air Filter		ED 0:00
ESCRIPTION: PM10 Filter REPORT NUMBER: 24030017	REPORT CREATED:	18-Mar-24			VERSION:	Version 01
ab ID Parameter		Qualifier	Result Units	RDL	Method	Analysis Date
030017-002 Particulate Weight			0.192 mg	0.004	AC-029	07-Mar-24

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6	PO Bag 4000 Vegreville, Alberta		ENVIRONMEN	NTAL ANALYTICAL S	SERVICES		
	Canada T9C 1T4 (780) 632-8211		TEST REPO	ORT			Page 3 of 11
	CLIENT SAMPLE ID		CANISTER ID	Matrix	4	DATE SAMPL	ED
\vee	OCs and TNMOC Test # 88	9	29030	Ambient	Air	24-Feb-24 0	:00
DESCRIPTION:	Air Canister						
REPORT NUMB	ER: 24030017	REPORT CREATED:	18-Mar-24			VERSION:	Version 01
Lab ID	Parameter		Qualifier	Result Units	RDL	Method	Analysis Date
24030017-001	Total Non-Methane Orga	nic Carbon	K, T, U	< 0.08 ppmv	0.08	NA-028	04-Mar-24
24030017-001	1,2,3-Trimethylbenzene			< 0.08 ppbv	0.08	AC-058	07-Mar-24
24030017-001	1,2,4-Trimethylbenzene			0.09 ppbv	0.05	AC-058	07-Mar-24
24030017-001	1,3,5-Trimethylbenzene			< 0.05 ppbv	0.05	AC-058	07-Mar-24
24030017-001	1-Butene/Isobutylene			0.46 ppbv	0.09	AC-058	07-Mar-24
24030017-001	1-Hexene/2-Methyl-1-pe	ntene		< 0.11 ppbv	0.11	AC-058	07-Mar-24
24030017-001	1-Pentene			< 0.05 ppbv	0.05	AC-058	07-Mar-24
24030017-001	2,2,4-Trimethylpentane			0.06 ppbv	0.03	AC-058	07-Mar-24
24030017-001	2,2-Dimethylbutane			< 0.03 ppbv	0.03	AC-058	07-Mar-24
24030017-001	2,3,4-Trimethylpentane			0.05 ppbv	0.03	AC-058	07-Mar-24
24030017-001	2,3-Dimethylbutane			< 0.14 ppbv	0.14	AC-058	07-Mar-24
24030017-001	2,3-Dimethylpentane			0.08 ppbv	0.03	AC-058	07-Mar-24
24030017-001	2,4-Dimethylpentane			< 0.05 ppbv	0.05	AC-058	07-Mar-24
24030017-001	2-Methylheptane			0.04 ppbv	0.03	AC-058	07-Mar-24
24030017-001	2-Methylhexane			0.34 ppbv	0.05	AC-058	07-Mar-24
24030017-001	2-Methylpentane			0.60 ppbv	0.03	AC-058	07-Mar-24
24030017-001	3-Methylheptane			< 0.05 ppbv	0.05	AC-058	07-Mar-24
24030017-001	3-Methylhexane			0.41 ppbv	0.03	AC-058	07-Mar-24
24030017-001	3-Methylpentane			0.10 ppbv	0.03	AC-058	07-Mar-24
24030017-001	Benzene			0.15 ppbv	0.05	AC-058	07-Mar-24
24030017-001	cis-2-Butene			< 0.05 ppbv	0.05	AC-058	07-Mar-24
24030017-001	cis-2-Pentene			< 0.03 ppbv	0.03	AC-058	07-Mar-24
24030017-001	Cyclohexane			0.11 ppbv	0.06	AC-058	07-Mar-24
24030017-001	Cyclopentane			0.04 ppbv	0.03	AC-058	07-Mar-24
24030017-001	Ethylbenzene			0.43 ppbv	0.05	AC-058	07-Mar-24

Report certified by: Andrea Conner, Admin Assistant

On behalf of: Adam Malcolm, Manager, Chemical Testing

Date: March 18, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at https://directory.cala.ca//

Inquiries: (780) 632 8403 E-mail: 1

E-mail: EAS.Results@innotechalberta.ca

6	PO Bag 4000 Vegreville, Alberta		ENVIRONME	NTAL ANALYTICAL S	SERVICES		
	Canada T9C 1T4 (780) 632-8211		TEST REPO	ORT			Page 4 of 11
	CLIENT SAMPLE ID	(CANISTER ID	Matrix	:	DATE SAMPL	ED
V	OCs and TNMOC Test # 889		29030	Ambient	Air	24-Feb-24 0):00
DESCRIPTION:	Air Canister						
REPORT NUMB	ER: 24030017	REPORT CREATED:	18-Mar-24			VERSION:	Version 01
Lab ID	Parameter		Qualifier	Result Units	RDL	Method	Analysis Date
24030017-001	Isobutane			0.52 ppbv	0.05	AC-058	07-Mar-24
24030017-001	Isopentane			0.65 ppbv	0.06	AC-058	07-Mar-24
24030017-001	Isoprene			< 0.03 ppbv	0.03	AC-058	07-Mar-24
24030017-001	Isopropylbenzene			< 0.06 ppbv	0.06	AC-058	07-Mar-24
24030017-001	m,p-Xylene			1.08 ppbv	0.06	AC-058	07-Mar-24
24030017-001	m-Diethylbenzene			< 0.03 ppbv	0.03	AC-058	07-Mar-24
24030017-001	m-Ethyltoluene			< 0.05 ppbv	0.05	AC-058	07-Mar-24
24030017-001	Methylcyclohexane			0.18 ppbv	0.03	AC-058	07-Mar-24
24030017-001	Methylcyclopentane			0.13 ppbv	0.08	AC-058	07-Mar-24
24030017-001	n-Butane			0.90 ppbv	0.03	AC-058	07-Mar-24
24030017-001	n-Decane			< 0.09 ppbv	0.09	AC-058	07-Mar-24
24030017-001	n-Dodecane			< 0.5 ppbv	0.5	AC-058	07-Mar-24
24030017-001	n-Heptane			0.58 ppbv	0.06	AC-058	07-Mar-24
24030017-001	n-Hexane			0.32 ppbv	0.05	AC-058	07-Mar-24
24030017-001	n-Octane			0.15 ppbv	0.03	AC-058	07-Mar-24
24030017-001	n-Pentane			0.63 ppbv	0.06	AC-058	07-Mar-24
24030017-001	n-Propylbenzene			< 0.09 ppbv	0.09	AC-058	07-Mar-24
24030017-001	n-Undecane			< 0.8 ppbv	0.8	AC-058	07-Mar-24
24030017-001	n-Nonane			0.09 ppbv	0.06	AC-058	07-Mar-24
24030017-001	o-Ethyltoluene			< 0.03 ppbv	0.03	AC-058	07-Mar-24
24030017-001	o-Xylene			0.30 ppbv	0.05	AC-058	07-Mar-24
24030017-001	p-Diethylbenzene			< 0.03 ppbv	0.03	AC-058	07-Mar-24
24030017-001	p-Ethyltoluene			< 0.06 ppbv	0.06	AC-058	07-Mar-24
24030017-001	Styrene			< 0.06 ppbv	0.06	AC-058	07-Mar-24
24030017-001	Toluene			1.40 ppbv	0.05	AC-058	07-Mar-24

Report certified by: Andrea Conner, Admin Assistant

Date: March 18, 2024

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

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Canada T9C 1T4 (780) 632-8211	TEST REPORT					Page 5 of 11
CLIENT SAMPLE ID VOCs and TNMOC Test # 889	C	ANISTER ID 29030	Matrix Ambient Air		DATE SAMPLED 24-Feb-24 0:00	
SCRIPTION:Air CanisterEPORT NUMBER:24030017	REPORT CREATED:	18-Mar-24			VERSION:	Version 01
b ID Parameter		Qualifier	Result Units	RDL	Method	Analysis Dat
030017-001 trans-2-Butene			< 0.05 ppbv	0.05	AC-058	07-Mar-24
030017-001 trans-2-Pentene			< 0.03 ppbv	0.03	AC-058	07-Mar-24

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TEST REPORT

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Revision History



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TEST REPORT

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<u>Methods</u>

Method	Description
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
NA-028	Determination of Total Non-methane Hydrocarbons and Total Hydrocarbons in Ambient Air by Gas Chromatography Flame Ionization Detector
Research	Research method
Lis	t of Analytical Method IDs within InnoTech's ISO/IEC 17025:2017 CALA Scope of Accreditation
Vethod ID	Description
AC-013	Mercury in Waters by Cold Vapor Atomic Fluorescence Detection (CVAFS)
AC-020	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-021	Elemental Analysis Methodology of Filter-collected Airborne Particulate Matter (PM) by ICP-MS
AC-026	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-035	Analysis of Glyphosate, Aminomethylphosphonic Acid and Glufosinate in Water
AC-038	Trace Metal Analysis of Water Samples by ICP-MS
AC-048	Specific Conductance (Conductivity Meter Method)
AC-049	pH (Meter Method)
AC-054	Alkalinity Total and Phenolphthalein
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
AC-060	Trace Metal Analysis of Soil Sediment and Industrial Waste Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-061	Trace Metal Analysis for Biological Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-065	Analysis of Naphthenic Acids in Water by HPLC-Orbitrap-MS analysis
AC-074	Pesticides in Water
AC-079	Alkylated PAH in Soil and Sediment
AC-080	Alkylated PAH in Water (SPE Extraction)
NA-006	Determination of BTEX, F1 Hydrocarbons and F2, F3 and F4 Hydrocarbons in Water
NA-024	Analysis of Reduced Sulfur Compounds in Air



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Qualifiers

Data Qualifier	Translation
В	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
К	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
Ν	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
Т	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Order Comments

24030017

Test # 889. Send results to Stan Yuha.



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Sample Comments



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.

	nolech	Canada T9C 1T4 (780) 632-8211	TEST REPO	RT			Page 1 of 11
	ALBERTA	(700) 052 0211					
ESULTS:	Todd Webb		C	LIENT SAMPLE ID		Matrix	
	Clean Harbo	rs Environmental	Hi-Vol Te	est #: 888, HVF-23-10-1	6	Air Filter	
	PO Box 390		CANISTER ID:				
		vy 14 on Sec Road 854 50114 RR 173	PRIORITY: No	rmal			
	Ryley AB	T0B 4A0	DESCRIPTION:	Hi-Vol Filter			
			DATE SAMPLED:	18-Feb-24 0:00	DATE RECI	E IVED: 22-F	eb-24
NVOICE:	Stephanie De	nnis	REPORT CREATE		REPORT N		0145
	PO Box 390	vy 14 on Sec Road 854 50114 RR 173			VERSION		sion 01
	Ryley	y 14 01 Sec Road 654 50114 RR 175					
	AB	T0B 4A0					
b ID	Paramete	~	Qualifier	Result Units	RDL	Method	Analysis Dat
020145-0			Quaimer	48.8 mg	0.1	Research	23-Feb-24

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <u>https://directory.cala.ca//</u>

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(C) _	PO Bag 4000 Vegreville, Alberta Canada T9C 1T4		ENVIKONMEN	NTAL ANALYTICAL S	DERVICES		
Canada 190 (780) 632-8			TEST REPORT		۲۲		Page 2 of 11
	L IENT SAMPLE ID st #: 888 Flt # AT76		ANISTER ID	Matrix Air Filte	Matrix		E D :00
		090			31	18-Feb-24 0	.00
	PM10 Filter 24020145	REPORT CREATED:	05-Mar-24			VERSION	Version 01
ab ID Para	ameter		Qualifier	Result Units	RDL	Method	Analysis Date
4020145-002 Part	ticulate Weight			0.461 mg	0.004	AC-029	27-Feb-24
Report certified by:ADate:March 5, 2024	Andrea Conner, Admin Assist	ant On behalf of: A	Adam Malcolm, Manager, C		780) 632 8403 E	-mail: EAS.Results@innote	

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <u>https://directory.cala.ca//</u>

6	PO Bag 4000 Vegreville, Alberta	ENVIRONMENTAL ANALYTICAL SERVICES				
	Canada T9C 1T4 (780) 632-8211	TEST REPC	DRT		I	Page 3 of 11
	CLIENT SAMPLE ID	CANISTER ID	Matrix		DATE SAMPLE	
VO	Cs and TNMOC Test #: 888	A47961	Ambient	Air	18-Feb-24 0	:00
DESCRIPTION:	Air Canister					
REPORT NUMB	ER: 24020145 REPORT CREATED:	05-Mar-24			VERSION	Version 01
Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
24020145-001	Total Non-Methane Organic Carbon	K, T, U	< 0.08 ppmv	0.08	NA-028	23-Feb-24
24020145-001	1,2,3-Trimethylbenzene	K, T, U	< 0.08 ppbv	0.08	AC-058	28-Feb-24
24020145-001	1,2,4-Trimethylbenzene	K, T, U	< 0.05 ppbv	0.05	AC-058	28-Feb-24
24020145-001	1,3,5-Trimethylbenzene	K, T, U	< 0.05 ppbv	0.05	AC-058	28-Feb-24
24020145-001	1-Butene/Isobutylene	I	0.15 ppbv	0.10	AC-058	28-Feb-24
24020145-001	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.12 ppbv	0.12	AC-058	28-Feb-24
24020145-001	1-Pentene	K, T, U	< 0.05 ppbv	0.05	AC-058	28-Feb-24
24020145-001	2,2,4-Trimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	2,2-Dimethylbutane	K, T, U	< 0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	2,3,4-Trimethylpentane	I	0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	2,3-Dimethylbutane	K, T, U	< 0.15 ppbv	0.15	AC-058	28-Feb-24
24020145-001	2,3-Dimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	2,4-Dimethylpentane	K, T, U	< 0.05 ppbv	0.05	AC-058	28-Feb-24
24020145-001	2-Methylheptane	K, T, U	< 0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	2-Methylhexane	I	0.06 ppbv	0.05	AC-058	28-Feb-24
24020145-001	2-Methylpentane		0.32 ppbv	0.03	AC-058	28-Feb-24
24020145-001	3-Methylheptane	K, T, U	< 0.05 ppbv	0.05	AC-058	28-Feb-24
24020145-001	3-Methylhexane	I	0.07 ppbv	0.03	AC-058	28-Feb-24
24020145-001	3-Methylpentane	I	0.13 ppbv	0.03	AC-058	28-Feb-24
24020145-001	Benzene	I	0.22 ppbv	0.05	AC-058	28-Feb-24
24020145-001	cis-2-Butene	K, T, U	< 0.05 ppbv	0.05	AC-058	28-Feb-24
24020145-001	cis-2-Pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	Cyclohexane	I	0.09 ppbv	0.07	AC-058	28-Feb-24
24020145-001	Cyclopentane	I	0.05 ppbv	0.03	AC-058	28-Feb-24
24020145-001	Ethylbenzene	I	0.10 ppbv	0.05	AC-058	28-Feb-24

Report certified by: Andrea Conner, Admin Assistant

Date: March 5, 2024

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

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6	PO Bag 4000 Vegreville, Alberta	ENVIRONMEI	NTAL ANALYTICAL	SERVICES		
	Canada T9C 1T4 (780) 632-8211	TEST REPO	ORT			Page 4 of 11
	CLIENT SAMPLE ID	CANISTER ID	Matrix		DATE SAMPLI	
VO	Cs and TNMOC Test #: 888	A47961	Ambient	Air	18-Feb-24 0	:00
DESCRIPTION:	Air Canister					
REPORT NUMB	ER: 24020145 REPORT CREA	ATED: 05-Mar-24			VERSION	Version 01
Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
24020145-001	Isobutane		3.04 ppbv	0.05	AC-058	28-Feb-24
24020145-001	Isopentane		1.00 ppbv	0.07	AC-058	28-Feb-24
24020145-001	Isoprene	K, T, U	< 0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	Isopropylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	28-Feb-24
24020145-001	m,p-Xylene	I	0.25 ppbv	0.07	AC-058	28-Feb-24
24020145-001	m-Diethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	m-Ethyltoluene	K, T, U	< 0.05 ppbv	0.05	AC-058	28-Feb-24
24020145-001	Methylcyclohexane	I	0.15 ppbv	0.03	AC-058	28-Feb-24
24020145-001	Methylcyclopentane	I	0.12 ppbv	0.08	AC-058	28-Feb-24
24020145-001	n-Butane		2.76 ppbv	0.03	AC-058	28-Feb-24
24020145-001	n-Decane	K, T, U	< 0.10 ppbv	0.10	AC-058	28-Feb-24
24020145-001	n-Dodecane	K, T, U	< 0.5 ppbv	0.5	AC-058	28-Feb-24
24020145-001	n-Heptane	I	0.10 ppbv	0.07	AC-058	28-Feb-24
24020145-001	n-Hexane		0.35 ppbv	0.05	AC-058	28-Feb-24
24020145-001	n-Octane	I	0.07 ppbv	0.03	AC-058	28-Feb-24
24020145-001	n-Pentane		0.78 ppbv	0.07	AC-058	28-Feb-24
24020145-001	n-Propylbenzene	K, T, U	< 0.10 ppbv	0.10	AC-058	28-Feb-24
24020145-001	n-Undecane	K, T, U	< 0.8 ppbv	0.8	AC-058	28-Feb-24
24020145-001	n-Nonane	I	0.10 ppbv	0.07	AC-058	28-Feb-24
24020145-001	o-Ethyltoluene	K, T, U	< 0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	o-Xylene	I	0.06 ppbv	0.05	AC-058	28-Feb-24
24020145-001	p-Diethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	28-Feb-24
24020145-001	p-Ethyltoluene	K, T, U	< 0.07 ppbv	0.07	AC-058	28-Feb-24
24020145-001	Styrene	K, T, U	< 0.07 ppbv	0.07	AC-058	28-Feb-24
24020145-001	Toluene		0.44 ppbv	0.05	AC-058	28-Feb-24

Report certified by: Andrea Conner, Admin Assistant

Date: March 5, 2024

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

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PO Bag 4000 Vegreville, Alberta Canada T9C 1T4 (780) 632-8211 CLIENT SAMPLE ID VOCs and TNMOC Test #: 888		ENVIRONMENTAL ANALYTICAL SERVICES TEST REPORT			Page 5 of 11		
		88	CANISTER ID A47961	Matrix Ambient Air		DATE SAMPLED 18-Feb-24 0:00	
DESCRIPTION: REPORT NUMB	Air Canister ER: 24020145	REPORT CREATED:	05-Mar-24			VERSION	Version 01
Lab ID	Parameter		Qualifier	Result Units	RDL	Method	Analysis Date
24020145-001	trans-2-Butene		K, T, U	< 0.05 ppbv	0.05	AC-058	28-Feb-24
24020145-001	trans-2-Pentene		K, T, U	<0.03 ppbv	0.03	AC-058	28-Feb-24

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Revision History



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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<u>Methods</u>

Method	Description
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
NA-028	Determination of Total Non-methane Hydrocarbons and Total Hydrocarbons in Ambient Air by Gas Chromatography Flame Ionization Detector
Research	Research method
Lis	t of Analytical Method IDs within InnoTech's ISO/IEC 17025:2017 CALA Scope of Accreditation
Vethod ID	Description
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AC-026	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-035	Analysis of Glyphosate, Aminomethylphosphonic Acid and Glufosinate in Water
AC-038	Trace Metal Analysis of Water Samples by ICP-MS
AC-048	Specific Conductance (Conductivity Meter Method)
AC-049	pH (Meter Method)
AC-054	Alkalinity Total and Phenolphthalein
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
AC-060	Trace Metal Analysis of Soil Sediment and Industrial Waste Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-061	Trace Metal Analysis for Biological Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
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AC-074	Pesticides in Water
AC-079	Alkylated PAH in Soil and Sediment
AC-080	Alkylated PAH in Water (SPE Extraction)
NA-006	Determination of BTEX, F1 Hydrocarbons and F2, F3 and F4 Hydrocarbons in Water
NA-024	Analysis of Reduced Sulfur Compounds in Air



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Qualifiers

Data Qualifier	Translation
В	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
К	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
Ν	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
Т	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Order Comments

24020145

Project ID: Test # 888. Results also to Stan Yuha.



PO Bag 4000 Vegreville, Alberta Canada T9C 1T4 (780) 632-8211

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Sample Comments



PO Bag 4000 Vegreville, Alberta Canada T9C 1T4 (780) 632-8211

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 11 of 11

Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.

RUSH (Surcharge): Particulate weight Particulate weight **ICP-MS** analysis **ICP-MS** analysis Analysis Requested RECEIVED MAR 0 6 2024 ANALYSIS REQUEST FORM FOR AITF USE ONLY Date Rec'd (D/M/Y): Email: Time (24 Hr) 43.58 hrs 26.12 hrs Project Code: Invoice Code: Client Code: D6 1048 #01 Quote ID: QT140005 Rec'd By: Date/Time Sampled Special Instructions/Comments: From/To Date (dd/mm/yy) 1/2/24 1/2/24 1/3/24 1/3/24 AITF Contact: Tel: Filter Number # HV-22-04-109 0/9 Filter Number # HV-22-12-10 Fax 780.663.3539 Direct Line 780.663.2513 mendoza.jorge@cleanharbors.com Jorge A. Mendoza Laboratory Manager 780.663.3828 Ext. 235 Home Office 780.663.2342 Mobile 780.934.2342 Sample Source Description Ѽ "People & Technology Creating a Safer, Cleaner Environment " PO Bag 4000 Phone: (780) 632-8284 Fax: (780) 632-8620 Clean Harbors Environmental Services Box 390 , 2 Km North of Hwy 14 Ryley Facility Test # 111 HVF-22-04-109 on Sec. Road 854 Ryley, AB T0B 4A0 www.cleanharbors.com Sample ID: 24030029-001 Priority: Normal Shipping: Highway 16 A & 75 St Ryley Facility Test # 111 Ryley School Test # 111 Vegreville, AB T9C 1T4 Sample ID Clean Harbours Client details: Project ID: Telephone: Company: Contact: Address: Email: Cust Samp ID: Customer ID:

				בו גם אנמוועמות נכווווא מוות	יווויז יכוומוון טן כשאטטען יוטוווויז אשטכרר נט וווווט בכוו אוואכורמ אמוועמוע נכווווא מווע נטוועונוטווז.	
(Signature)				(Signature)	()	This "Chain of Cust
		Laboratory Personnel:	Labora		n: NSCON	Client Authorization:
					-	
	Total: 23.06 hrs					
over trigger weight)*		07/02/24		HI-VOL Filter	HI-VOL Test Number: 886 HI-V	(
Daution lato Wholekt 10 motols if		06/02/24	HVF-23-10-14			S
over trigger weight)*	00:00	07/02/24				8
FLT Particulate Weight (& metals if	00:00	06/02/24	AT76596	DN10 filter	DM10 Test Number: 886 DM	د
	00:00	07/02/24			Number: 886	
VOC DAMS & TNNAOC	00:00	06/02/24	32265	Conictor	VOCs and TNMOC Test	-
Analysis Requested	Time Sampled (24 hour) From / To	Date Sampled (dd/mm/yy) From / To	Canister Number/ Sampler ID	Sample Source/ Description	Client Sample ID Des	Lab Sample No.
	(
RECEIVED	EL S				Trigger Weight for Analysis (HI-VOL): 86.5 mg	Trigger Weight for
EED 0 0034					Trigger Weight for Analysis (PM10): 1.20 mg	Trigger Weight for
			and VOCs/TNMOC	is analyzed for metals e report as filter weights	If neither filter exceeds its trigger weight, neither filter is analyzed for metals If metals analysis is required, please report on the same report as filter weights and VOCs/TNMOC	If neither filter exc If metals analysis i
			analyzed for metals	t, then both filters are	* lf either PM10 or HI-VOL filter exceeds its trigger weight, then both filters are analyzed for metals	*If either PM10 or
tb Use Only	Date Received – Lab Use Only				s/Comments:	Special Instructions/Comments:
			239503	PO #: 2	<u>Webb.Todd@cleanharbors.com,</u> <u>Yuha.Stan@cleanharbors.com</u>	Email: <u>Webt</u> Yuha.
Confirm rush requests with inno ech Alberta.	Contirm rush request		Test 886	Project ID: 1	780-663-2513 or 780-663-3828	Phone: 780-6
Note: Rush service not available for all tests.	Note: Rush service no	<u>harbors.com</u>	Dennis.Stephanie@cleanharbors.com	Email:	Todd Webb or Stan Yuha	Contact: Todd
	Rush		780-663-3828	Phone: 7	PO Box 390, 50114 Range Road 173, Ryley, AB TOB 4A0	Address: PO Bo Ryley
ısiness daγs)	X Normal (10 business days)		Stephanie Dennis	Contact: S	Clean Harbors Canada, Inc	Company: Clean
	Turnaround Time		t Billing Information	_		Client Report.
	-			#: 886		Cust
Phone: 780-632-8403 Email: EAS.Reception@innotechalberta.ca www.innotechalberta.ca	Analytical Services 175 Street 19C 1T4	Environmental Analytical Highway 16A & 75 Street Vegreville, AB T9C 1T4	2	JY FORM	iomer ID: Clean Harbours	
			2		Sample ID: 24020064-001 Priority: Normal	San

EvacuatedSEP 1 9 2023 Recertified: UEC 2 0 2023 (Use within: 3 months from evacuation or recertification date) Laboratory Contact Number: 780-632-8403	ALBERTA This cleaned canister meets or exceeds TO-15 Method Specifications AUG 2 1 2023 Proofed by: /SQ on: AUG 2 1 2023	Canister ID: 32265.	Customer ID: Clean Harbours Cust Samp ID: VOCs and TNMOC Test #: 886	Sample ID: 24020064-001 Priority: Normal
Starting Vacuum:	Sampled By:	Sample ID: Test # 886		
End Vacuum: ~ -2. 2 "Hg/psig	- 6 "1-1 g Jup	67		

A

Sample ID: 24020064-001 Priority: Normal

ustomer ID:	
 Clean Harbours	

Customer ID: Clean Harbours Cust Samp ID: VOCs and TNMOC Test #: 886

Sent To: Clean Harbors

PO Box 390 Ryley, AB T0B 4A0

(1/2 mile north, Hwy 854)

Todd Webb 780-663-2513

Filter Shipping Record

Date:

November 29/23

RECEIVED

Project:

Prepared by:

Clean Harbors

	 		 	 	 		land and the second states	
							47 mm	Filter Size
		-						# of Filters in Cassettes
						×	AT	
							AT76596	
							0	
								Filter IDs
							7	
							Test 286	
							986	
L			 					

Returns: coolers, large and small containers may be shipped to: Innotech, PO Bag 4000, HWY 16A & 75th Street, Vegreville, AB T9C 1T4

	Customer ID: Clean Harbours
Alberta.	insurance it deems necessary. Sample ID: 24020064-001 Priority: Normal
24. Inis Quotation and rights and parties thereto shall be governed by and construed according to the laws of the Province of Alberta. The parties hereby submit to the jurisdiction of the Courts of	by InnoTech Alberta in providing the Services. InnoTech Alberta will not be responsible for any damage or loss to items during shipping and it is the responsibility of the Client to arrange and pay for any
23.1.nno lecin Alberta may assign this Quotation to an antiliated (as that term is defined at section 2 of the Business Corporations Act (Alberta)) or successor entity on written notice to the Client.	responsible for all costs incurred by InnoTech Alberta in collecting any item for testing and returning the item to the Client after testing and shall be responsible for all necessary incidental costs incurred
sabotage, fire, flood, explosion, earthquake or other disasters.	11.Prices quoted do not include shipping, insurance or cost of consumables. The Client shall be
obligations caused by circumstances beyond its control, including but not limited to acts of God, strikes, laws imposed after the fact, governmental restrictions, riots, wars, civil disorder, rebellion,	10.Prices quoted are in Canadian Dollars unless otherwise stated in writing and are exclusive of any provincial, municipal, sales, use or goods and services tax.
22. InnoTech Alberta shall not be liable to the Client for any failure or delay in performance of its	Retention and Disposition Schedule.
21. This Agreement represents the entire agreement between the parties and shall supersede all prior agreements relative to this transaction.	9.Records, test data, reports and samples, except where shipped to the Client after completion of the work shall be retained by InnoTech Alberta according to InnoTech Alberta's approved Records
while on InnoTech Alberta premises.	results thereof, without the prior written consent of InnoTech Alberta.
20. The Client agrees to comply with all InnoTech Alberta Safety & Security regulations in effect	releases, public statements or announcements, whether written or oral relating to the Services or the
supplement or add insurance coverage from time to time as may be required in its sole discretion.	the same results. 8 The Client chall not use InnoTech Alberta's name in any advertising material cale offer name
required by applicable laws. Notwithstanding the foregoing, InnoTech Alberta reserves the right to	Alberta makes no representation that any similar or related untested samples or items would produce
the amount of one million dollars (\$1,000,000.00) per claim, and two million dollars (\$2,000,000.00) in the addredate. In addition. InnoTech Alberta shall maintain all workers' compensation coverace	provided by the Client shall be interpreted as being specific to the sample or item tested. InnoTech
(\$2,000,000.00) per occurrence, and; (ii) professional liability and errors and omissions insurance in	Protection of Privacy Act (Alberta). 7 The reported results of any InpoToch Alborta tasts or evolutions performed on samples or items
liability, severability of interests, non-owned automobile liability) in the amount of two million dollars	Agreement are subject to the protection and access provisions of the Freedom of Information and
Innol ech Alberta shall have no liability for any loss or damage to such property. 19.InnoTech Alberta shall maintain the following incurance. (i) commercial general liability incurance finduding cross	any applicable law. Any records required to be maintained by InnoTech Alberta pursuant to this
responsible for insuring all owned property directly or indirectly related to this Agreement and	obligation of confidentiality set out in this section shall not prevent the disclosure of information to any level of dovernment having jurisdiction to make lawful demand therefor, or required to be disclosed by
against bodily injury, and property damage including loss of use thereof. Further, the Client is	becomes part of the public domain through no act or failure on the part of InnoTech Alberta. The
to, the citent shall, at its own expense and without limiting its ilabilities nerein, be responsible for insuring its operation in an amount not less than \$2,000,000 inclusive ner occurrence, insuring	information that was in InnoTech Alberta's possession prior to receipt from the Client or which is or
The hold harmless shall survive this Agreement.	termination of the Agreement. The obligation of confidentiality set out herein shall not apply to any
third party following its return to the Client.	that its employees, contractors and agents will not disclose the same to any other person, firm or
	as the confidential property of the Client, and InnoTech Alberta will use reasonable efforts to ensure
(u)uniterences between unose items actually tested and items previously or subsequently produced which are minimum tested, or	6.All data, reports and other information relating to the Services shall be treated by InnoTech Alberta
time the item was submitted for testing; (h)differences between these items actually tested and items previously or subsectionally produced	Client's Intellectual Property.
dangerous defect or content was not disclosed in writing to InnoTech Alberta by the Client at the	shall operate as a license, permission or grant of any other rights to either InnoTech Alberta's or the
(a)any dangerous defect or content in the item being tested, whether apparent or not, which	iornis or protection. Intellectual Property Which was owned by either Innolech Alberta or the Client prior to the signing of this Agreement remains the property of that party. Nothing in this Agreement
	limitation, those that could be the subject of patent, copyright, industrial design, trade secret or other
17. The Client shall indemnify and hold harmless InnoTech Alberta from any and all claims,	literary works, concepts, designs, processes, software, algorithms and inventions, including, without
suffered by the Client, including loss of anticipated profits	5. For the purposes of this Quotation, Intellectual Property means all information, data, artistic and
of the information contained is at the Client's own risk.	be responsible for any damage, which is a natural or necessary result of any testing procedure.
the results of these Services or items tested as is, and acknowledges that any use or interpretation	oeing tested or for any damage, loss or expense caused by any delay in carrying out the test, including any damade. loss or expense resulting from InnoTech Alberta's negligence. InnoTech Alberta shall not
purpose of any goods or products to be delivered pursuant to this Agreement. The Client accepts	InnoTech Alberta shall not, however, be liable to the Client for any damage or loss caused to the item
15.InnoTech Alberta makes no representation, warranties or conditions, either expressed or implied,	4.InnoTech Alberta will exercise due care and proficiency in testing items submitted by a Client.
overdue interest at the same rate.	J. Ine delivery time for performance of the Services (as set out on the front page of this Quotation) is approximate and may be changed by InnoTech Alberta giving written notice to the Client.
14.If the Client fails to pay any amount under this Agreement, such unpaid amount shall bear interest at a rate per month equal to one (1%) percent (or 12 6825% per annum) with interest on	2.InnoTech Alberta will perform the Services in accordance with normal professional standards.
days from the date of invoice, without deduction or set-off.	INC. (hereinafter referred to as "InnoTech Alberta").
associated with the nationing, damsportation and dispose of such materials. 13.The Client shall pay all invoices rendered by InnoTech Alberta to the Client within thirty (30)	not be used or disclosed to any other party without prior written consent of the INNOTECH ALBERTA
(c)indemnify and hold InnoTech Alberta harmless from any and all claims, damages or actions	1 Any proposal contained horses is proposed for the consideration of the Client only. The contract mere
(b)reinibutse third fect where for any costs incurred by third fect where associated with the handling, transportation and disposal of such materials; and	commencement of the Services shall be deemed acceptance of the terms and conditions by the Client.
Materials; (E)verimetions Tenn-Tenn Alborth for the pertoined by Tenn-Tenh Alborth apportated with the	and Conditions, unless otherwise specified on the Quotation. InnoTech Alberta's
(a)be responsible for all costs associated with the handling, transportation and disposal of such	The attached document entitled "Chain of Custody Form" is subject to the following Terms
12. Any test samples or other materials supplied by the client to innolech Alberta may, at innolech Alberta's option, be returned by InnoTech Alberta to the Client. The Client shall:	{00004084;2} TERMS AND CONDITIONS
40 A	

Cust Samp ID: VOCs and TNMOC Test #: 886

ViCG and TrivitOC Test #87 web rough information Centract: Stephanie bennis Phone: 750-663-3328 Phone: 750-663-750 Phone: 750-76 Phone: 750-77 Phone: 750-77 Phone: 750-76 Ph	Customer ID: C	tomer ID: Clean Harbours			Vegreville. AB T9C 1T4	cr	பாள். EAS.Neceptionகாயும் குண்ணு www.innotechalberta.ca
Image: Second Time Information Image: Contact:::::::::::::::::::::::::::::::::::		OCs and TNMOC Test # 887	-				
an Harbors Canada, Inc. and Harbors Canada, Inc. and Harbors Canada, Inc. bex 300, 50114 Range Road 113, phone: bex 300, 50114 Range Road phone: bex 30, 50114 Range Road bex 30,	Client Repo	rting Information	Client Bill	ing Information		Turnaround Time	
Box 300, 50114 Range Road 173, bey, A3 T0B 440 Phone:: 780-663-3828 Phone:: Rush Frail:: Dennis Stenhene@Cleanharbors.com Not: Rush Review row dd Webb or Stan Yuha Project ID:: Test 887 Project ID:: Test 887 Pob of Stan Yuha Project ID:: Test 887 Project ID:: Test 887 Pob of Stan Yuha Project ID:: Test 887 Dennis Stenhene@Cleanharbors.com Note: Rush server no Pob of Stan Yuha Project ID:: Test 887 Dennis Stenhene@Cleanharbors.com Date Received - Lat an NOC influer weight, nether filter is analyzed for metals Date Received - Lat Date Received - Lat is required, please report on the same report as filter weights and VOCs/TNMOC Date Received - Lat Analysis (Hi-VOL): 83.3 mg Sample Source/ Canister Number/ Date Sample/ Or Analysis (Hi-VOL): 83.3 mg Sample Source/ 29017 12/02/24 00:00 Number: 887 PM10 filter A175594 12/02/24 00:00 Number: 887 Hi-VOL Test Number: 887 Hi-VOL Test Number: 887 Hi-VOL Test Number: 823 Total: 23.52 hs Interverse PM10 filter Hi-VOL Test Number: 887 Hi-VOL Test Number: 823 Doctor Interverse PM10 filter Hi-VOL Test Number: 823 Hi-VOL Test Number:	Company:	Clean Harbors Canada, Inc	Contact:	Stephanie Dennis			usiness days)
dd Webb or Stan Yuha Email: Demils. Stephanle@cleanharkors.com Note: Rush service not 0-663-3513 or 780-663-3628 Project ID: Test 887 Project ID: Test 887 0-663-3513 or 780-663-3628 Project ID: Test 887 Demils. Stephanle@cleanharkors.com Note: Rush service not 0-663-3513 or 780-663-3628 Project ID: Test 887 Project ID: Test 887 Demils. Stephanle@cleanharkors.com Note: Rush service not nb Stan@cleanharkors.com Not Youn the same report as filter veights and VOCs/TNMOC Date Received - Lat Date Received - Lat not Analysis (Hu-VOL) 883 multiple Sample for metals Continuos Date Received - Lat not Analysis (Hu-VOL) 883 multiple Sample for metals Contract (Edmin rush requests) Date Received - Lat not Analysis (Hu-VOL) 883 multiple Sample for cont as filter weights and VOCs/TNMOC Contract (Edmin rush requests) Date Received - Lat not Analysis (Hu-VOL) 883 multiple Sample for cont as filter weights and VOCs/TNMOC Contract (Edmin rush requests) Date Received - Lat Not Analysis (Hu-VOL) 883 multiple Sample for cont (Edmin rush reset) Date Received - Lat Date Received - Lat Not Analysis (Hu-VOL) 883 multiple Sample for cont (Edmin rush reset) Date Received - Lat Date Received - Lat Number: 887 PNUO filter <td>Address:</td> <td>PO Box 390, 50114 Range Road 173, Ryley, AB T0B 4A0</td> <td>Phone:</td> <td>780-663-3828</td> <td></td> <td>Rush</td> <td></td>	Address:	PO Box 390, 50114 Range Road 173, Ryley, AB T0B 4A0	Phone:	780-663-3828		Rush	
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BD:StandedCenterthors.com PO #: 239503 In:StandedCentertherbors.com In:StandedCentertherbors.com In:StandedCentertherbors.com Determediate In:StandedCentertherbors.com Determediate In:StandedCentertex Determediate In:StandedCentertex Determediate In:StandedCentertex Determediate In:Oritine received its trigger weight, ineither filters are analyzed for metals Determediate Is is required, please report on the same report as filter weights and VOCs/TNMOC Determediate Is is required, please report on the same report as filter weights and VOCs/TNMOC Determediate Is is required, please report on the same report as filter weights and VOCs/TNMOC Determediate Is required, please report on the same report as filter weights and VOCs/TNMOC Determediate Is required, please report on the same report as filter weights and VOCs/TNMOC Determediate In another is 887 Determediate Determediate In under: 887 PM10 filter Determediate Determediate PM10 Test Number: 887 HI-VOL Filter	Phone:	780-663-2513 or 780-663-3828	Project ID			Confirm rush reques	s with InnoTech Alberta.
ons/Comments: Date Received - Lat or H-VOL filter exceeds its trigger weight, then both filters are analyzed for metals Date Received - Lat exceeds its trigger weight, neither filter is analyzed for metals Ear equiced, plases report on the same report as filter weights and VOCs/TNMOC for Analysis (HI-VOL): 88.3 mg Ear equived, plases report on the same report as filter weights and VOCs/TNMOC for Analysis (HI-VOL): 88.3 mg Sample source/ Canister Number/ Earning for Number/ Earning for Number/ vCCs and TNMOC Test Canister Canister Number/ 13/02/24 00:00 Description Number: 887 PM10 Test Number: 887 PM10 filter 13/02/24 00:00 Description HI-VOL Test Number: 887 PM10 filter 13/02/24 00:00 Description HI-VOL Test Number: 887 PM10 filter 13/02/24 00:00 Description HI-VOL Test Number: 887 PM10 filter 13/02/24 Docion Description HI-VOL Test Number: 887 PM10 filter 13/02/24 Docion Description HI-VOL Test Number: 887 PM10 filter Docion Docion Description HI-VOL Test Number: 887 PM10 filter Docion	Email:	<u>Webb.Todd@cleanharbors.com</u> <u>Yuha.Stan@cleanharbors.com</u>	PO #:	239503			
or Hi-VOL filter exceeds its trigger weight, then both filters are analyzed for metals exceeds its trigger weight, neither filter is analyzed for metals is is required, please report as filter weights and VOCs/TNMOC for Analysis (HI-VOL): 8.3 mg for Analysis (HI-VOL): 8.3 mg	Special Insti	ructions/Comments:			с. У	Date Received – Li	ib Use Only
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Cor Amalysis (PML0J): 1.23 mg for Amalysis (Hi-VOL): 88.3 mg for Amalysis (Hi-VOL): 88.3 mg for Amalysis (Hi-VOL): 88.3 mg cor Amalysis (Hi-VOL): 88.3 mg constraints Sample Source/ base Sampled Sampler ID Date Sampled from / To Time Sampled from / To Client Sample ID Sample ID Date Sampler ID Date Sampled from / To Inter Sampler ID Date Sampled from / To Inter Sampler ID VOCs and TNMOC Test Canister Lanktron 12/02/24 00:00 PM10 Test Number: 887 PM10 filter 13/02/24 00:00 HI-VOL Test Number: 887 HI-VOL Filter 13/02/24 Do:00 HI-VOL Test Number: 887 HI-VOL Filter Do:00 Do:00	If neither fil If metals an	ter exceeds its trigger weight, neither alysis is required, please report on the	filter is analyzed for met: : same report as filter we	als ights and VOCs/TNMOC			CEINEU
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Client Sample ID Sample Source/ Description Canister Number/ Sampler ID Canister Number/ From / To (dd/mm/yr) (24 hour) VOCs and TNMOC Test Canister 29017 12/02/24 00:00 VOCs and TNMOC Test Canister AT76594 12/02/24 00:00 PM10 Test Number: 887 PM10 filter HVF-23-10-15 12/02/24 00:00 PM10 Test Number: 887 HI-VOL Test Number: 887 HVF-23-10-15 12/02/24 00:00 HI-VOL Test Number: 887 HI-VOL Filter HVF-23-10-15 12/02/24 00:00 Ini-VOL Test Number: 887 HI-VOL Filter HVF-23-10-15 12/02/24 00:00 Ini-VOL Test Number: 887 HI-VOL Filter HVF-23-10-15 12/02/24 00:00 Ini-VOL Test Number: 887 HI-VOL Filter HVF-23-10-15 12/02/24 00:00 Ini-VOL Test Number: 887 HI-VOL Filter HVF-23-10-15 12/02/24 00:00 Ini-VOL Test Number: 887 HI-VOL Filter HVF-23-10-15 12/02/24 10/01					Date Sampled	Time Sampled	
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13/02/24 00:00 3-10-15 12/02/24 13/02/24 Total: 23.52 hrs 13/02/24 Total: 23.52 hrs Laboratory Personnel: Laboratory Personnel:				AT76594	12/02/24	00:00	FLT Particulate Weight (& metals if
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13/02/24 13/02/24 Total: 23.52 hrs Total: 23.52 hrs Laboratory Personnel: Laboratory Personnel:				HVF-23-10-15	12/02/24		
Total: 23.52 hrs Total: 23.52 hrs Laboratory Personnel:		HI-VOL Test Number: 887	HI-VOL Filter		13/02/24		Particulate Weight (& metals if over trigger weight)*
Laboratory Personnel:(Signature)			×			Total: 23.52 hrs	
Laboratory Personnel:							*
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	Client Autho	N		Labora	itory Personnel:		
This "Chain of Custodu" form is subject to InnoToch Albarta standard terms and conditions	This "Chain,	of Custody" form is subject to InnoTecl	(Signature)				(Signature)

Sample ID: 24020131-001 Priority: Normal

F163-01

Page 1 of 2

	Close Harbours			FEB 2 U 2024
Customer ID: Cust Samp ID:	Clean nanouns PM10 Test # 887 - Filter # AT76594	7 - Filter # AT	# AT76594 Filter Shipping Record	
	Sent To:	Clean Harbors PO Box 390	larbors Date: 390	Very more 29, 23
		Ryley, AB	Ryley, AB T0B 4A0 Project:	Clean Harbors
		(1/2 mile nor Todd Webb	(1/2 mile north, Hwy 854) Todd Webb	An Delene
		780-663-2513		
	Filter Size	# of Filters in Cassettes	rs in Filter IDs	
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	Raturns: Cor	lare large and s	Dativesti sectors been and small contriners may be shinned to: Innotech DO Ben 4000 HMV 464 & 75th Street Verreville AR TaC 174	

RECEIVED

Sample ID: 24020131-002 Priority: Normal

		End Vacuum:	
Sample ID:	Sampled By:	Starting Vacuum: 、 <i>ふて</i> っ "Hg	
Canister ID: 29017	This cleaned canister meets or exceeds TO-15 Method Specifications 0CT 2 4 2023 ON: 01:	Evacuated: JAN 0 4 2024 Recertified: (Use within: 3 months from evacuation or recertification date) Laboratory Contact Number: 780-632-8403	
C InnoTech	Proofed by: 15Q	Evacuated: JAI (Use within: 5 Lab	

Sample ID: 24020131-001 Priority: Normal



Clean Harbours VOCs and TNMOC Test # 887

12. Any test samples or other materials sumplied by the Client to InnoTech Alberta may at InnoTech	Alberta's option, be returned by InnoTech Alberta to the Client. The Client shall:	(a)be responsible for all costs associated with the handling, transportation and disposal of such materials;	(b)reimburse InnoTech Alberta for any costs incurred by InnoTech Alberta associated with the handling, transportation and disposal of such materials; and	(c)indemnify and hold InnoTech Alberta harmless from any and all claims, damages or actions	associated with the nationing, transportation and unsposed of such materials. 13. The Client shall pay all invoices rendered by InnoTech Alberta to the Client within thirty (30)	days from the date of involce, without deduction of set-off. 14.If the Client fails to pay any amount under this Agreement, such unpaid amount shall bear	interest at a rate per month equal to one (1%) percent (or 12.6825% per annum) with interest on overdue interest at the same rate.	15.InnoTech Alberta makes no representation, warranties or conditions, either expressed or implied,	subuctory or outerwise and does not warrant the quality, state, merchantability or fitness for any purpose of any goods or products to be delivered pursuant to this Agreement. The Client accepts	the results of these Services or items tested as is, and acknowledges that any use or interpretation of the information contained is at the Client's own risk.	16.In no event shall InnoTech Alberta be liable for any indirect or consequential damage or loss	surfered by the client, including loss of anocpated profiles. 17.The Client shall indemnify and hold harmless InnoTech Alberta from any and all claims,	demands, actions and costs (including legal costs on a solicitor-client basis) that may arise out of:	(a)airly darigerous detect or content with the new pend tested, whether apparent or hot, which dangerous defect or content was not disclosed in writing to InnoTech Alberta by the Client at the	ume the item was submitted for testing; (b)differences between those items actually tested and items previously or subsequently produced	which are purported to be identical to the item tested; or (c)any use of the tested item or any item incornoration the tested item whether by the Client or a	third party following its return to the Client.	The hold harmless shall survive this Agreement.	to the vient shair, at its own expense and without limiting its liabilities nerein, be responsible for insuring its operation in an amount not less than \$2,000,000 inclusive per occurrence, insuring	against bodily injury, and property damage including loss of use thereof. Further, the Client is	responsible for insuring all owned property directly or indirectly related to this Agreement and InnoTech Alberta shall have no liability for any loss or damage to such property 19 InnoTech Alberta	shall maintain the following insurance: (i) commercial general liability insurance (including cross	liability, severability of interests, non-owned automobile liability) in the amount of two million dollars (\$2,000,000.00) per occurrence, and; (ii) professional liability and errors and omissions insurance in	the amount of one million dollars (\$1,000,000.00) per claim, and two million dollars (\$2,000,000.00)	in the aggregate. In addition, thiolech Alberta shall maintain all workers' compensation coverage required by applicable laws. Notwithstanding the foregoing, InnoTech Alberta reserves the right to	supplement or add insurance coverage from time to time as may be required in its sole discretion. InnoTech Alberta may provide certificates of insurance for coverages outlined in (i) and (ii) above.	20.The Client agrees to comply with all InnoTech Alberta Safety & Security regulations in effect	21. This Agreement represents the entire agreement between the parties and shall supersede all	prior agreements relative to this transaction. 22.InnoTech Alberta shall not be liable to the Client for any failure or delay in performance of its	obligations caused by circumstances beyond its control, including but not limited to acts of God, strikes, laws imposed after the fact, governmental restrictions, riots, wars, civil disorder, rebellion,	sabotage, fire, flood, explosion, earthquake or other disasters.	23. Initiol fect Alberta may assign this Quotation to an anniated (as that term is defined at section 2 of the Business Corporations Act (Alberta)) or successor entity on written notice to the Client.	24. This Quotation and rights and parties thereto shall be governed by and construed according to the laws of the Province of Alberta. The parties hereby submit to the jurisdiction of the Courts of Alberta.		Page 2 of 2
	{UUUU4084,2} . TERMS AND CONDITIONS	The attached document entitled "Chain of Custody Form" is subject to the following Terms and Conditions, unless otherwise specified on the Ouotation. InnoTech Alberta's	commencement of the Services shall be deemed acceptance of the terms and conditions by the Client.		1.Any proposal contained neren is prepared for the consideration of the client only. Its contents may not be used to disclosed to any other party without prior written consent of the INNOTECH ALBERTA	LINC. (nerematter referred to as _initiol ecin Alberta). 2.InnoTech Alberta will perform the Services in accordance with normal professional standards.	3. The delivery time for performance of the Services (as set out on the front page of this Quotation) is annovimments and may be channed by InnoTech Alberta cliving written notice to the Clivit.	approximate and may be changed by amongent substantianty written mouse to the chemic. 4. InnoTech Alberta will exercise due care and proficiency in testing items submitted by a Client.	InnoTech Alberta shall not, however, be liable to the Client for any damage or loss caused to the item being forted or for any damage loss or avenues caused by any datavity cannot out the fort including	being tested of tot any damage, loss of expense caused by any detay in carrying out the test, including any damage, loss or expense resulting from InnoTech Alberta's negligence. InnoTech Alberta shall not	be responsible for any damage, which is a natural or necessary result of any testing procedure. 5. For the purposes of this Ouotation. Intellectual Property means all information. data, artistic and	literary works, concepts, designs, processes, software, algorithms and inventions, including, without	inmuauon, unose unat courd be the subject of patent, copyright, industrial design, trade secret of other forms of protection. Intellectual Property which was owned by either InnoTech Alberta or the Client	prior to the signing of this Agreement remains the property of that party. Nothing in this Agreement shall operate as a license, permission or grant of any other rights to either InnoTech Alberta's or the	Client's Intellectual Property.	o.All data, reports and outer information relating to the services shall be treated by infromet an ear Aberta as the confidential property of the Client, and InnoTech Alberta will use reasonable efforts to ensure	that its employees, contractors and agents will not disclose the same to any other person, firm or	corporation during the term of this Agreement and for a period of hive (5) years after the date of termination of the Agreement. The obligation of confidentiality set out herein shall not apply to any	information that was in InnoTech Alberta's possession prior to receipt from the Client or which is or	becomes part of the public domain through no act or failure on the part of InnoTech Alberta. The obligation of confidentiality set out in this Section shall not nervent the disclosure of information to any	level of government having jurisdiction to make lawful demand therefor, or required to be disclosed by	any applicable law. Any records required to be maintained by InnoTech Alberta pursuant to this Agreement are subject to the protection and access provisions of the Freedom of Information and	Protection of Privacy Act (Alberta).	7.The reported results of any InnoTech Alberta tests or evaluations performed on samples or items provided by the Cliant challe a interveted as baing concific to the cample or item tested. InnoTech	province by the chert share of interpreted as being specific to the sample of them tested. This con- Alberta makes no representation that any similar or related untested samples or items would produce	ure same resurs. 8.The Client shall not use InnoTech Alberta's name in any advertising material, sale offer, news	releases, public statements or announcements, whether written or oral relating to the Services or the results thereof without the mine written consent of InnoTech Alberta	9. Records, test data, reports and samples, except where shipped to the Client after completion of the	work shall be retained by InnoTech Alberta according to InnoTech Alberta's approved Records Retention and Disposition Schedule.	10. Prices quoted are in Canadian Dollars unless otherwise stated in writing and are exclusive of any provincial. municipal. sales. use or goods and services tax.	11. Prices quoted do not include shipping, insurance or cost of consumables. The Client shall be	responsible for all costs incurred by InnoTech Alberta in collecting any item for testing and returning the item to the Client after testing and shall be responsible for all necessary incidental costs incurred	by InnoTech Alberta in providing the Services. InnoTech Alberta will not be responsible for any damage or loss to items during shipping and it is the resonnsibility of the Client to arrange and nav for any	insurance it deems necessary. Sample ID: 24020131-003 Priority: Normal	F163-01 Cust Samu ID: Clean Harbours Cust Samu ID: H1/KI Tast # 887 Eliher # H1/F 23 10 15

Clean Harbours HiVol Test # 887 - Fiiter # HVF-23-10-15 Customer ID: Cust Samp ID:

Involution HI-VOL Test Number: 888 HI-VOL Filter HI-VOL Filter 19/02/24 Particulate Weight (& metals if over trigger weight)* Involution Involution Involution Involution Involution Involution		Phone: 780-632-8403 Email: EAS.Reception@innotechalberta.ca www.innotechalberta.ca business days) not available for all tests. ssts with InnoTech Alberta. ssts with InnoTech Alberta. Analysis Requested VOC PAMS & TNMOC FLT Particulate Weight (& metals i over trigger weight)*	Analytical Services TS Street FJC 1T4 Turnaround Time X Normal (10 b Rush Note: Rush service Confirm rush reque Confirm rush reque Time Sampled (24 hour) From / To 00:00 00:00	AB AB		-001 Priority: Normal	Sample ID: 24020145-001 Priority: Normal ALB Client Reporting Info Clean Harbors Canada, Inc Company: Clean Harbors Canada, Inc PO Box 390, 50114 Range Road 173, Address: Ryley, AB T0B 4A0 Contact: Todd Webb or Stan Yuha Contact: Phone: Contact: Phone: Phone: Phone: Contact: Phone: Phone: Phone: Contact: Phone: Phone: Special Instructions/Comments: Prigger Weight for Analysis (PM10): 1.23 mg Trigger Weight for Analysis (HI-VOL): 89.4 mg Sample Source/ Description Sample Source/ Description VOCs and TNMOC Test Number: 888 PM10 Test Number: 888 PM10 filter	Client Reporting Info Company: Clean Ha Address: Ryley, A Contact: Todd W Phone: 780-663 Email: <u>Webb.T</u> Special Instructions/v *If either PM10 or HI If neither filter excee If metals analysis is r Trigger Weight for Ap Trigger Weight for Ap Uab Sample No. Cl	
HI-VOL Test Number: 888 HI-VOL Filter HVF-23-10-16 18/02/24 19/02/24 Image: Second system		Analysis Requested VOC PAMS & TNMOC FLT Particulate Weight (& metals over trigger weight)*	From / To 00:00 00:00 00:00 00:00	From / To 18/02/24 19/02/24 18/02/24 18/02/24 19/02/24	A47961 AT76595	Description Canister PM10 filter	Client Sample ID VOCs and TNMOC Test Number: 888 PM10 Test Number: 888	Lab Sample No.	
Client Sample IDDescriptionSampler IDFrom / ToFrom / ToVOCs and TNMOC Test Number: 888 $Canister$ A4796118/02/2400:00PM10 Test Number: 888PM10 filterA17659518/02/2400:00PM10 Test Number: 888PM10 filterA17659518/02/2400:00HI-VOL Test Number: 888HI-VOL FilterHVF-23-10-1618/02/2400:00HI-VOL FilterMI-VOL FilterTotal: 23.82 hrsHI-VOL FilterInterInterInterHI-VOL FilterInterInterInterHI-VOL FilterInterInterInterHI-VOL FilterInterInterInterHI-VOL FilterInterInterInterHI-VOL FilterInter </td <th>Client Sample ID Description Sampler ID From / To From / To VOCs and TNMOC Test Number: 888 Canister A47961 18/02/24 00:00 PM10 Test Number: 888 PM10 filter AT76595 18/02/24 00:00 PM10 Test Number: 888 PM10 filter AT76595 19/02/24 00:00</th> <td>e business days) not available for all tests. ests with InnoTech Alberta. Lab Use Only FEB 2 2 2024</td> <td>Turnaround Time X Normal (10 k Rush Note: Rush service Confirm rush reque Date Received – L Time Sampled (24 hour)</td> <td>harbors.com Date Sampled</td> <td></td> <td>NMOC Test #: 888 Contact: Phone: Email: Project ID: PO #: Filter is analyzed for metals same report as filter weigh Sample Source/</td> <td></td> <td>Client Reporting Company: Cleater Address: PO Address: Ryle Contact: Toc Phone: 780 Email: We Email: Yuh Special Instruction *If either PM10 If metals analysis Trigger Weight f Trigger Weight f Trigger Weight f</td>	Client Sample ID Description Sampler ID From / To From / To VOCs and TNMOC Test Number: 888 Canister A47961 18/02/24 00:00 PM10 Test Number: 888 PM10 filter AT76595 18/02/24 00:00 PM10 Test Number: 888 PM10 filter AT76595 19/02/24 00:00	e business days) not available for all tests. ests with InnoTech Alberta. Lab Use Only FEB 2 2 2024	Turnaround Time X Normal (10 k Rush Note: Rush service Confirm rush reque Date Received – L Time Sampled (24 hour)	harbors.com Date Sampled		NMOC Test #: 888 Contact: Phone: Email: Project ID: PO #: Filter is analyzed for metals same report as filter weigh Sample Source/		Client Reporting Company: Cleater Address: PO Address: Ryle Contact: Toc Phone: 780 Email: We Email: Yuh Special Instruction *If either PM10 If metals analysis Trigger Weight f Trigger Weight f Trigger Weight f	
Cust Samp ID: VOCs and TMMOC Test \mathbb{R} Repeting Info Terror Motion Turnaround Time Information Cust Sign Project ID: Sephanic Demis Instruction/Somments: Project ID: Test Sephanic Demis and VOCs/TNMOC Instruction/Somments: Description Description Sephan	Cust Samp ID: VOCs and TIMMOC Test # 888 Information Turnaround Time Information Curraction Turnaround Time See PO Box 390, 50114 Range Road 173, Roley, AB 708 640 or Stan Yuha Contact: Stephanie Dennis See Poince Colspan="2">See Poince Colspan="2">See Poince Colspan="2">See Poince Colspan="2">See Poince Colspan="2">See Poince Colspan="2">See Poince Colspan="2" Normal (10 but Runde Colspan="2") See Poince Stan Yuha See Poince Colspan="2" See Poince Colspan="2" Rush Rush Webb of Stan Yuha Poince Colspan="2" Poince Colspan="2" Rush Normal (10 but Runde Colspan="2") Visha Stan@cleanharbors.com Poince Colspan="2" Poince Colspan="2" Poince Colspan="2" Poince Colspan="2" Note: Rush service no Instructions/Comments: Email: Confirm rush requests Instructions/Comments: Date Sampled (1-la) Instructions/Comments: Date Sampled (24 hour) Confirm rush requests <th colspa<="" th=""><td>Phone: 780-632-8403 Email: EAS.Reception@innotechalberta.c <u>www.innotechalberta.ca</u></td><td>lytical Services Street 1T4</td><td>Environmental Ana Highway 16A & 75 Vegreville, AB T9C</td><td>Ň</td><td>-001 Priority: Normal</td><td>Sample ID: 24020145</td><td>A SUBSIDIARY OF ALBERT</td></th>	<td>Phone: 780-632-8403 Email: EAS.Reception@innotechalberta.c <u>www.innotechalberta.ca</u></td> <td>lytical Services Street 1T4</td> <td>Environmental Ana Highway 16A & 75 Vegreville, AB T9C</td> <td>Ň</td> <td>-001 Priority: Normal</td> <td>Sample ID: 24020145</td> <td>A SUBSIDIARY OF ALBERT</td>	Phone: 780-632-8403 Email: EAS.Reception@innotechalberta.c <u>www.innotechalberta.ca</u>	lytical Services Street 1T4	Environmental Ana Highway 16A & 75 Vegreville, AB T9C	Ň	-001 Priority: Normal	Sample ID: 24020145	A SUBSIDIARY OF ALBERT

F163-01

Sample ID: 24020145-001 Priority: Normal

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Customer ID:	Clean Harbours	
Cust Samp ID:	VOCs and TNMOC Test #: 888	

Sent To:

Clean Harbors PO Box 390

780-663-2513

Todd Webb

Ryley, AB T0B 4A0 (1/2 mile north, Hwy 854)

Filter Shipping Record

Date:



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Clean Harbors

Ange

Prepared by:

					47 mm	Filter Size
						# of Filters in Cassettes
					ATT6595	Filter IDs
					test 888	

Returns: coolers, large and small containers may be shipped to: Innotech, PO Bag 4000, HWY 16A & 75th Street, Vegreville, AB T9C 1T4



 10. Prices quoted are in Canadian Dollars unless otherwise stated in writing and are exclusive of any provincial, municipal, sales, use or goods and services tax. 11. Prices quoted do not include shipping, insurance or cost of consumables. The Client shall be responsible for all costs incurred by InnoTech Alberta in collecting any ite Sample ID: 24020145-001 Priority: Normal instrance or cost of the client will not be responsibility of the Client will not be responsibility of the Client will not be client. by InnoTech Alberta in providing the Services. InnoTech Alberta will not be client will not be client will not be client. by InnoTech Alberta in providing the Services. InnoTech Alberta will not be client. by InnoTech Alberta in providing the Services. InnoTech Alberta will not be client. customer ID: Clean Harbours cust Samp ID: VOCs and TNMOC Test # 888 	releases, public statements or announcements, whether written or oral relating to the services or the results thereof, without the prior written consent of InnoTech Alberta. 9.Records, test data, reports and samples, except where shipped to the Client after completion of the work shall be retained by InnoTech Alberta according to InnoTech Alberta's approved Records Retention and Disposition Schedule.	7. The reported results of any InnoTech Alberta tests or evaluations performed on samples or items provided by the Client shall be interpreted as being specific to the sample or item tested. InnoTech Alberta makes no representation that any similar or related untested samples or items would produce the same results. 8. The Client shall not use InnoTech Alberta's name in any advertising material, sale offer, news	becomes part of the public domain through no act or failure on the part of InnoTech Alberta. The obligation of confidentiality set out in this Section shall not prevent the disclosure of information to any level of government having jurisdiction to make lawful demand therefor, or required to be disclosed by any applicable law. Any records required to be maintained by InnoTech Alberta pursuant to this Agreement are subject to the protection and access provisions of the Freedom of Information and Protection of Privacy Act (Alberta).	6.All data, reports and other information relating to the Services shall be treated by InnoTech Alberta 6.All data, reports and other information relating to the Services shall be treated by InnoTech Alberta as the confidential property of the Client, and InnoTech Alberta will use reasonable efforts to ensure that its employees, contractors and agents will not disclose the same to any other person, firm or corporation during the term of this Agreement and for a period of five (5) years after the date of termination of the Agreement. The obligation of confidentiality set out herein shall not apply to any information that was in InnoTech Alberta's possession prior to receipt from the Client or which is or	5.For the purposes of this Quotation, Intellectual Property means all information, data, artistic and literary works, concepts, designs, processes, software, algorithms and inventions, including, without limitation, those that could be the subject of patent, copyright, industrial design, trade secret or other forms of protection. Intellectual Property which was owned by either InnoTech Alberta or the Client prior to the signing of this Agreement remains the property of that party. Nothing in this Agreement shall operate as a license, permission or grant of any other rights to either InnoTech Alberta's or the Client's Intellectual Property.	3. The delivery time for performance of the Services (as set out on the front page of this Quotation) is approximate and may be changed by InnoTech Alberta giving written notice to the Client. 4. InnoTech Alberta will exercise due care and proficiency in testing items submitted by a Client. InnoTech Alberta shall not, however, be liable to the Client for any damage or loss caused to the item being tested or for any damage, loss or expense caused by any delay in carrying out the test, including any damage, loss or expense caused by any delay in carrying out the test, and the be responsible for any damage, which is a natural or necessary result of any testing procedure.	The Client. 1. Any proposal contained herein is prepared for the consideration of the Client only. Its contents may not be used or disclosed to any other party without prior written consent of the INNOTECH ALBERTA INC. (hereinafter referred to as "InnoTech Alberta"). 2. InnoTech Alberta will perform the Services in accordance with normal professional standards.	<pre>{00004084;2} TERMS AND CONDITIONS The attached document entitled "Chain of Custody Form" is subject to the following Terms and Conditions, unless otherwise specified on the Quotation. InnoTech Alberta's commencement of the Services shall be deemed acceptance of the terms and conditions by the Client</pre>
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The Client accepts the results of these Services or items tested as is, and acknowledges that any use or interpretation of the information contained is at the Client's own risk.	 (c)indemnify encryon and opposed or occurrence of the procession of the pro	12. Any test samples or other materials supplied by the Client to InnoTech Alberta may, at InnoTech Alberta's option, be returned by InnoTech Alberta to the Client. The Client shall: (a)be responsible for all costs associated with the handling, transportation and disposal of such materials; (b)reimburse InnoTech Alberta for any costs incurred by InnoTech Alberta associated with the handling, transportation and disposal of such handling.

Customer ID:		1AIN UF CUSTODY FURIM	MAC	Environmental Analytical Services Highway 16A & 75 Street Vegreville, AB T9C 1T4	al Services et	Phone: 780-632-8403 Email: EAS.Reception@innotechalberta.ca <u>www.innotechalberta.ca</u>
Cust Samp ID: Unent керс	Samp ID: VOCs and TNMOC Test # 889 LIGENT REPORTING INFORMATION	Client Billir	Client Billing Information		Turnaround Time	
Company:	Clean Harbors Canada, Inc	Contact:	Stephanie Dennis		X Normal (10 business days)	isiness days)
Address:	PO Box 390, 50114 Range Road 173, Rvlev. AB TOB 4A0	Phone:	780-663-3828		Rush	
Contact:	Todd Webb or Stan Yuha	Email:	Dennis. Stephanie@cleanharbors.com	arbors.com	Note: Rush service n	Note: Rush service not available for all tests.
Phone:	780-663-2513 or 780-663-3828	Project ID:	Test 889		Confirm rush reques	Contirm rush requests with Innol ech Alberta.
Email:	<u>Webb.Todd@cleanharbors.com</u> , Yuha.Stan@cleanharbors.com	FO #:	239503			
Special Inst	Special Instructions/Comments:				Date Received – La	b Use Only
*If either P	*If either PM10 or HI-VOL filter exceeds its trigger weight, then both filters	r weight, then both filters	are analyzed for metals		RECEIV	CEIVED
If neither f	If neither filter exceeds its trigger weight, neither filter is analyzed for metals	filter is analyzed for meta	ls			MAR D 4 2024
If metals a	If metals analysis is required, please report on the same report as filter weights and VOCs/TNMOC	e same report as filter wei	ghts and VOCs/TNMOC		a Davie de Carden	6707
Trigger We Trigger We	Trigger Weight for Analysis (PM10): 1.20 mg Trigger Weight for Analysis (HI-VOL): 89.6 mg				220	
ah Samia No	o No Client Samule ID	Sample Source/ Description	Canister Number/ Sampler ID	Date Sampled (dd/mm/yy) From / To	Time Sampled (24 hour) From / To	Analysis Requested
			29030	24/02/24	00:00	
	Number: 889	Canister		25/02/24	00:00	VOC PAMS & INMOC
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	PM10 Lest Number: 889			25/02/24	00:00	over trigger weight)*
			HVF-23-10-17	24/02/24		
	HI-VOL Test Number: 889	HI-VOL Filter		25/02/24		Particulate Weight (& metals if over trigger weight)*
					Total: 23.87 hrs	
Cliant Aut	Client Authorization		Labora	Laboratory Personnel:	-	
		(Signature)				(Signature)
This "Chain	This "Chain of Custody" form is subject to InnoTech Alberta standard terms and conditions.	ch Alberta standard terms a	and conditions.			

F163-01

Page 1 of 2

Clean Habors	St 893	
Date: Project:		
nal Filter Shipping Record ob 4A0 h, Hwy 854)	Elfer DS	
riority: Normal ilter # AT9744 clean Harbors PO Box 390 Ryley, AB T0B 4A0 (1/2 mile north, Hwy 854)	780-663-2513 # of Filters in Cassettess	
1030017-002 Priority: Norm Clean Harbours Clean Harbours Sent To: Clean Harbors Sent To: Clean Harbors PO Box 390 Ryley, AB TO (1/2 mile north	Filter Size 47 mm	
Sample ID: 24030017-002 Priority: Normal Sample ID: 24030017-002 Priority: Normal Customer ID: Clean Harbours Cust Samp ID: PM10 Test # 888 - Filter # AT9744 Cust Samp ID: PM10 Test # 888 - Filter # AT9744 PO Box 390 Ryley, AB T0B (1/2 mile north, ¹		

Returns: coolers, large and small containers may be shipped to: Innotech, PO Bag 4000, HWY 16A & 75th Street, Vegreville, AB T9C 1T4

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Can	BERTA This cleaned canister meets or exceeds TO-J5 Method Specifications 0CT 2 4, 2023 On: 0CT 2 4, 2023 Sampled By: TWUD	AN 2 2 2024 Recertified: Starting Vacuum: End Vacuum: ithin: 3 months from evacuation or recertification date) -27.4//*Hg "Hg Laboratory Contact Number: 780-632-8403 -27.4//*Hg "Hg
C nnoTech	ALBERTA This Proofed by: 150	Evacuated: JAN 2 2 2024 (Use within: 3 months fron Laboratory Cont

{00004084;2} TERMS AND CONDITIONS	12. Any test samples or other materials supplied by the Client to InnoTech Alberta may, at InnoTech Alberta's option, be returned by InnoTech Alberta to the Client. The Client shall: (a) he reserves the second second with the bandling terrocottion and discover of such
The attached document entitled " Chain of Custody Form " is subject to the following Terms and Conditions, unless otherwise specified on the Quotation. InnoTech Alberta's	experies experisione for an costs associated with the framining, darisplotation and disposal of such materials, materials, the state of
commencement of the Services shall be deemed acceptance of the terms and conditions by the Client.	(b)reimburse Innolech Alberta for any costs incurred by Innolech Alberta associated with the handling, transportation and disposal of such materials; and
1.Anv proposal contained herein is prepared for the consideration of the Client only. Tts contents may	(c)indemnify and hold InnoTech Alberta harmless from any and all claims, damages or actions associated with the handling, transportation and disposal of such materials.
	13. The Client shall pay all invoices rendered by InnoTech Alberta to the Client within thirty (30) days from the date of invoice without deduction or cer-off
2. InnoTech Alberta will perform the Services in accordance with normal professional standards.	14.If the Client fails to pay any amount under this Agreement, such unpaid amount shall bear
3.The delivery time for performance of the Services (as set out on the front page of this Quotation) is	interest at a rate per month equal to one (1%) percent (or 12.6825% per annum) with interest on overdue interest at the same rate.
approximate and may be changed by amorecul subside giving written modes to the chant. 4. InnoTech Alberta will exercise due care and proficiency in testing items submitted by a Client.	15.InnoTech Alberta makes no representation, warranties or conditions, either expressed or implied,
InnoTech Alberta shall not, however, be liable to the Client for any damage or loss caused to the item	statutory or otherwise and does not warrant the quality, state, merchantability or ittness for any purpose of any goods or products to be delivered pursuant to this Agreement. The Client accepts
being tested or for any damage, loss or expense caused by any delay in carrying out the test, including anv damage. loss or expense resulting from InnoTech Alberta's negligence. InnoTech Alberta shall not	the results of these Services or items tested as is, and acknowledges that any use or interpretation
be responsible for any damage, which is a natural or necessary result of any testing procedure.	of the information contained is at the Lijent's own risk. 16 In no event shall InnoTerh Alherta he liable for anv indirect or consequential damane or loss
	suffered by the Client, including loss of anticipated profits.
literary works, concepts, designs, processes, sottware, algorithms and inventions, including, without limitation those that could be the subject of natent, convright, industrial design, trade secret or other	17.The Client shall indemnify and hold harmless InnoTech Alberta from any and all claims,
forms of protection. Intellectual Property which was owned by either InnoTech Alberta or the Client	demands, actions and costs (including legal costs on a solicitor-client basis) that may arise out or: (a)any dangerous defect or content in the item being tested, whether apparent or not, which
prior to the signing of this Agreement remains the property of that party. Nothing in this Agreement chall onerate as a licence nermiscion or grant of any other rights to either InnoTech Alberta's or the	dangerous defect or content was not disclosed in writing to InnoTech Alberta by the Client at the
sitiati operace as a ficerise; permission of grant of any other rights to clarer annoteen more as a ficer of a Client's Intellectual Property.	time the item was submitted for testing; (h)differences between three items actually tested and items previously or subsequently produced
6.All data, reports and other information relating to the Services shall be treated by InnoTech Alberta	(b)biliterences between tripse retrins actually tested and retrips previously or subsequency produced which are purported to be identical to the item tested; or
as the confidential property of the Client, and InnoTech Alberta will use reasonable efforts to ensure	(c)any use of the tested item or any item incorporating the tested item, whether by the Client or a
ulat us emproyees, contractors and ageins will not disclose the same to any other person, min of corporation during the term of this Agreement and for a period of five (5) years after the date of	thira party tollowing its return to the client. The hold harmless shall survive this Agreement.
termination of the Agreement. The obligation of confidentiality set out herein shall not apply to any	18. The Client shall, at its own expense and without limiting its liabilities herein, be responsible for
information that was in InnoTech Alberta's possession prior to receipt from the Client of Which Is of heromes part of the public domain through no act or failure on the part of InnoTech Alberta. The	insuring its operation in an amount not less than \$2,000,000 inclusive per occurrence, insuring
obligation of confidentiality set out in this Section shall not prevent the disclosure of information to any	against bouily injury, and property damage including loss of use thereot. Further, the Client is responsible for insuring all owned property directly or indirectly related to this Agreement and
level of government having jurisdiction to make lawful demand therefor, or required to be disclosed by	InnoTech Alberta shall have no liability for any loss or damage to such property. 19.InnoTech Alberta
any applicable law. Any records required to be maintained by inno ech Alberta pursuant to unis Agreement are subject to the protection and access provisions of the Freedom of Information and	shall maintain the following insurance: (i) commercial general liability insurance (including cross liability covershilty of interactic managements and addited liability) in the amount of two million dollars
Protection of Privacy Act (Alberta).	(\$2,000,000.00) per occurrence, and; (ii) professional liability and errors and omissions insurance in
	the amount of one million dollars $(\$1,000,000.00)$ per claim, and two million dollars $(\$2,000,000.00)$
provided by the Client shall be interpreted as being specific to the sample or item tested. Inno ecn Alherta makes no representation that any similar or related untested samples or items would produce	in the aggregate. In addition, InnoTech Alberta shall maintain all workers' compensation coverage required by applicable laws. Notwithstanding the foregoing. TonoTech Alberta receives the right to
the same results.	supplement or add insurance coverage from time to time as may be required in its sole discretion.
8. The Client shall not use InnoTech Alberta's name in any advertising material, sale offer, news	InnoTech Alberta may provide certificates of insurance for coverages outlined in (i) and (ii) above.
releases, public statements or announcements, whether written or oral relating to the services or the results thereof, without the prior written consent of InnoTech Alberta.	zu. me ureme agrees to compty with all inmorech Alberta sarety & security regulations in enect while on InnoTech Alberta premises.
9. Records, test data, reports and samples, except where shipped to the Client after completion of the	21. This Agreement represents the entire agreement between the parties and shall supersede all
work shall be retained by InnoTech Alberta according to InnoTech Alberta's approved Records Detention and Disposition Schodule	prior agreements relative to this transaction. 22.InnoTech Alberta shall not be liable to the Client for any failure or delay in performance of its
10. Prices guoted are in Canadian Dollars unless otherwise stated in writing and are exclusive of any	obligations caused by circumstances beyond its control, including but not limited to acts of God,
provincial, municipal, sales, use or goods and services tax.	strikes, laws imposed after the fact, governmental restrictions, riots, wars, civil disorder, rebellion, sabotane fire flood evolosion earthouake or other disasters.
11. Prices quoted do not include shipping, insurance or cost of consumables. The Client shall be	23.InnoTech Alberta may assign this Quotation to an "affiliated" (as that term is defined at Section
responsible for all costs incurred by innol each Alberta in collecting any term for resung any returning the item to the Client after testing and shall be responsible for all necessary incidental costs incurred	2 of the Business Corporations Act (Alberta)) or successor entity on written notice to the Client. 24 This Quotation and rights and parties thereto shall be proversed by and construed according to
by InnoTech Alberta in providing the Services. InnoTech Alberta will not be responsible for any damage or loss to items during shipping and it is the responsibility of the Client to arrange and pay for any	the laws of the Province of Alberta. The parties hereby submit to the jurisdiction of the Courts of
insurance it deems necessary Sample ID: 24030017-003 Priority: Normal	Alberta.

Customer ID: Clean Harbours Cust Samp ID: Hi-Vol Test # 888 - HVF-23-10-17

F163-01

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