



600 Southgate Drive
Guelph ON Canada
N1G 4P6

Tel: +1.519.823.1311
Fax: +1.519.823.1316
E-mail: solutions@rwdi.com

MEMORANDUM

DATE:	2019-05-28	RWDI Reference No.:	1803743
TO:	Emilee O'Leary	EMAIL:	Emilee.oleary@ontario.ca
CC:	Lyndsay Waller	EMAIL:	Lyndsay.Waller@Durham.ca
FROM:	Matt Lantz	EMAIL:	matt.lantz@rwdi.com
RE:	MECP Comments – RWDI Response Region of Durham, DYEC		

1. CONTINUOUS PARAMETERS

MECP Comment #1: Based on the supporting documentation provided, the continuous parameters (NO₂, PM_{2.5}, and SO₂) are deemed to be valid for the third quarter (Q3) of 2018.

RWDI Response: RWDI has reviewed this data and confirmed that the continuous parameters (NO₂, SO₂ & PM_{2.5}) are valid for the third quarter (Q3) of 2018.

MECP Comment #2: Based on the supporting documentation provided, the validity of the continuous data (NO₂, PM_{2.5}, and SO₂) is questionable for the fourth quarter (Q4) of 2018. Further documentation and clarification are required at this time. Please provide a copy of the station log book for October to December 2018 to review the maintenance and corrective actions conducted at the Courtice and Rundle stations.

RWDI Response: RWDI has provided a copy of the station log book for October to December 2018 to review the maintenance and corrective actions conducted at the Courtice and Rundle stations.

MECP Comment #3: Based on the zero and span curves under Appendix C for the Q4 monitoring report, the SO₂ analyzer drifted beyond 2 ppb at Courtice Station. For future, this drift requires an offset adjustment as per the revised *Operations Manual for Air Quality Monitoring in Ontario* (MECP, 2018). Please ensure this offset is included in future quarterly report submissions.

RWDI Response: RWDI has noted this comment and will ensure an offset adjustment beyond 2 ppb as per the revised *Operations Manual for Air Quality Monitoring in Ontario* (MECP, 2018). Those offset adjustment will be included (if any) in future quarterly report submissions.



Emilee O'Leary
Ministry of Environment, Conservation and Parks
RWDI#1803743
May 28, 2019

MECP Comment #4: Similarly, a drift beyond 2 ppb was also observed for the NO₂ analyzer at Rundle Station. For future, this drift requires an offset adjustment. Please ensure this offset is included in future quarterly report submissions.

RWDI Response: RWDI has noted this comment and will ensure an offset adjustment beyond 2 ppb as per the revised *Operations Manual for Air Quality Monitoring in Ontario* (MECP, 2018). Those offset adjustment will be included (if any) in future quarterly report submissions.

MECP Comment #5: Please provide a calibration record for 2018 for the meteorological tower at Courtice Water Pollution Control Plant and at Rundle Station. This information is required as supporting documentation for the ministry's review and validity of the meteorological data.

RWDI Response: RWDI calibrated the Rundle station wind head on December 20th, 2018 and has provided the record. The Courtice Water Pollution Control Plant was calibrated on May 24th, 2019 and will be included in the Q2 2019 report.

MECP Comment #6: The percent of valid hours reported for wind direction for Q4 at Rundle station does not match the percent of valid hours for wind speed. Please clarify.

RWDI Response: This was due to a formula error in the post processing Wind Direction spread sheet. The wind direction spread sheet included December 1 in the November calculation and did not start until December 2 for the December calculation. It would appear that this sheet did not get updated from the Q3 report. The wind speed sheet was fine. This is a very minor error and we do not propose to reissue the statistical summary unless requested. We have filed the note in our QA section and will check this calculation in future.

MECP Comment #7: The report did not include a section on MECP audits. Please revise and include a discussion if corrective actions were performed at each station.

RWDI Response: A discussion on the 2018 MECP audits is included in the 2018 annual report. RWDI will include a section on MECP audits for quarterly reports starting in Q1 2019.

MECP Comment #8: The Courtice and Rundle NO₂ hourly data submitted to the ministry has been edited. As confirmed via email with the Regions and RWDI, the edited data includes the proposed NO and NO_x correction algorithm summarized in the RWDI January 18, 2019 letter.

Based on our review of the NO₂ hourly data, there are many inconsistencies predominantly from November to December with the NO_x balance. Please provide station logs for each station to verify that appropriate corrective action was taken.

RWDI Response: Station logs have been provided for MECP review.



Emilee O'Leary
Ministry of Environment, Conservation and Parks
RWDI#1803743
May 28, 2019

MECP Comment #9: The hourly pollution roses (Figures 6, 7 & 8) in the Q4 submission does not appear to follow the same wind pattern as presented in Figure 5 (Windrose). Please clarify.

RWDI Response: The hourly pollution roses show the distribution of winds while pollutant levels are above a certain cutoff value. The cutoff values are detailed in the text. The wind roses show the distribution of all winds regardless of pollutant values. We would not expect the pollutant roses to look similar to the wind roses.

MECP Comment #10: The ministry will comment on the validity of the continuous parameters for Q4 once the additional information requested above has been submitted.

2. NON CONTINUOUS PARAMETERS

MECP Comment #1: Please provide the Q3 and Q4 edit logs and lab certificate of analysis for the non-continuous parameters for all stations. It is recommended to include this information in all future quarterly report submissions.

RWDI Response: RWDI has confirmed to include edit logs and lab certificate of analysis for the non-continuous parameters for all stations in all future quarterly report submissions.

MECP Comment #2: The PAH sample at Courtice station was invalid on November 22, 2018. Please provide a rationale (edit log) and the lab certificate of analysis for the ministry's review.

RWDI Response: The PAH sample at Courtice on November 22, 2018 was invalidated due to a large sample volume, edit log and lab certificate has been submitted to the MECP.

MECP Comment #3: TSP and metal samples were invalid on November 10, 2018 at Rundle station. Please provide a rationale as to why this sample was invalid in the edit log for the non-continuous parameters.

RWDI Response: The TSP and metal samples were invalid on November 10th, 2018 at Rundle station due to a failed pump.

MECP Comment #4: TSP and metal samples for Q4 which exceeded the ministry's HiVol flow requirement of 40 CFM should be reported as is with a note stating that the flows were above the flow requirement, as stipulated in the *Operations Manual for Air Quality Monitoring in Ontario* (MECP, 2018). Please confirm that the TSP and metals for Q4 were not corrected to 60 CFM as proposed in the RWDI January 18/2019 letter.

RWDI Response: The results were reported as is, the volumes were determined by the calibration conducted on December 21, 2018.



Emilee O'Leary
Ministry of Environment, Conservation and Parks
RWDI#1803743
May 28, 2019

MECP Comment #5: Based on the supporting documentation provided, the ministry cannot comment at this time on the validity of the Q3 and Q4 dioxins and furans, TSP/metals and PAHs data due to missing information (edit logs and lab certificate of analysis).

RWDI Response: RWDI has provided the edit logs and certificates of analysis.

Regards,

A handwritten signature in black ink that reads "Matt Lantz". The signature is fluid and cursive, with a long horizontal stroke at the end.

Matt Lantz, B.Sc., C.Tech., QSTI
Project Manager

ML/klm
Attach.