

**NEW GOLD RAINY RIVER MINE  
APPENDIX K  
EXCEEDANCE LETTERS  
SUBMITTED TO MECP**

April 14, 2021

Matt Hoffmeister & Jason Tittlemier  
Senior Environmental Officers  
Ministry of the Environment, Conservation and Parks  
808 Robertson St.  
Kenora, ON P9N 1X9

Dear Mr. Hoffmeister and Mr. Tittlemier,

**SUBJECT: NORTHWEST STATION AMBIENT AIR QUALITY EXCEEDANCE OF 24-HOUR TOTAL SUSPENDED PARTICULATE MONITORING LIMITS**

During the review of the first quarter air quality lab results, it was noted that on January 28, 2021, the total suspended particulates (TSP) concentration at the Northwest Ambient Air Quality Monitoring Station had exceeded Ministry approved limits of 120 ug/m<sup>3</sup>. On January 28, 2021, the TSP concentration at the Northwest Ambient Air Quality Monitoring Station was 178.9 ug/m<sup>3</sup>.

The delay between the date of occurrence and when we became aware of the exceedance, and hence reporting, is due to the wait time for lab results. The following letter report accompanies a copy of the Notification of Exceedance form (NOE) as per ECA #0412-A2LR4V.

The Northwest Ambient Air Quality Monitoring Station is located approximately 400 m due west of the Tailings Management Area (TMA) on the Rainy River Mine Site (Figure 1). Highway 600 itself passes by the Ambient Air Quality Monitoring Station in a north-south direction at approximately 70 meters to the west.

TSP samples were collected during a 24-hr period on January 28, 2021 as per Rainy River Project Ambient Air Quality Monitoring Plan, accepted by MECP on November 9th, 2016. During this 24-hour period, predominant wind direction was from the east to northeast (Figure 2). With these wind directions, the preliminary investigation identified the source of the dust would likely be from the Rainy River Mine Site TMA activities.

Two potential sources of suspended particulate, TMA dam buttressing and geotechnical drilling, were further investigated and deemed to not have caused the TSP exceedance. The dam buttressing was only occurring on the South Dam toe and any dust generated would not have been carried to the northwest station by the wind direction that day. The geotechnical drilling was first thought to be the source but was deemed not likely, due to the drill rig being completely enclosed in insulated tarps to keep the staff safe from the elements.

The Environmental Department's field staff have found cigarette butts within the fenced in Northwest Air Quality Station since the snow has melted and suspect tampering of this unit during run times. Since the discovery of the exceedance, all cigarette butts have been removed, the Northwest Station locked, and a trail camera installed.



Once you have had the opportunity to review this document, please contact me at (807) 276-0106 with any questions or concerns.

Regards,

<original signed by>

Garnet Cornell  
Environment Supervisor

cc. Sylvie St.Jean ([sylvie.st.jean@newgold.com](mailto:sylvie.st.jean@newgold.com))

cc. Carolyn Winik ([carolyn.winik@newgold.com](mailto:carolyn.winik@newgold.com))

cc. Sarah Flesher ([sarah.flesher@newgold.com](mailto:sarah.flesher@newgold.com))

February 16, 2021

District Manager,  
c/o Matt Hoffmeister  
Senior Environmental Officer, Kenora Area  
Ministry of the Environment, Conservation and Parks  
808 Robertson Street  
Kenora, Ontario P9N 1X9

Dear Sir,

**FUGITIVE DUST COMPLAINT – SAC# 2172-BY5P5C**

On February 11, 2021 at 9:20 am, New Gold Rainy River Mine (RRM) Community Relations received a complaint regarding fugitive dust migrating East from the mine to Hwy 71. As per ECA #0412-A2LR4V terms and conditiona section 7.1 and 7.2 please accept this letter as notification.

- a) A message from Amy Shute stated that she drove through dust from the mine for approximately 2 km on Hwy 71 as she reported to RRM for work (approximately 7:00 am), approximate distance was from Teeple Road turnoff to Korpi Road turnoff. She believed the dust source was the Primary Crusher Course Ore Stockpile.
- b) The complaint was received by RRM Community Relations at 9:20 am on February 11, 2021 regarding fugitive dust at Hwy 71 between Teeple Road turnoff and Korpi Road turnoff.
- c) Climatic conditions at the time were wind direction from the northwest, wind speed 5 km/hr, relative humidity 68%, temperature -39 degrees C., with clear skies.
- d) Ginger Bragg, Supervisor for New Gold RRM Community Relations, received the complaint at 9:20 am.
- e) The Course Ore Stockpile height was at approximately 54% at 7:00 am with the dust being caused by an excessively long drop from the conveyer onto the Course Ore Stockpile. Upon notification of the complaint, Mill Operations stopped processing ore in order to increase the Course Ore Stockpile height and reduce dust emissions. The mill did not resume crushing until 6:00 pm when the wind direction changed to come from the East and limit fugitive dust leaving site. Ore processing didn't start until the stockpile reached 85% of its allowable height. Mine Operations also changed ore sourcing to allow improved crusher productivity and built the stockpile height as quickly as possible.

Should you require additional information, please contact the undersigned at [Garnet.Cornell@newgold.com](mailto:Garnet.Cornell@newgold.com) or telephone (807) 482-0931. Sylvie St. Jean, Environment Manager, may also be contacted at [Sylvie.St.Jean@newgold.com](mailto:Sylvie.St.Jean@newgold.com) or telephone (807) 707-3497.

Sincerely,

<original signed by>

**Garnet Cornell**  
Environment Supervisor

cc.

Sylvie St. Jean, Environment Manager ([Sylvie.St.Jean@newgold.com](mailto:Sylvie.St.Jean@newgold.com))

Renee Boucher, Community Relations Manager ([Renee.Boucher@newgold.com](mailto:Renee.Boucher@newgold.com))

Tyler Buckingham, Mill Manager ([Tyler.Buckingham@newgold.com](mailto:Tyler.Buckingham@newgold.com))



April 15, 2021

Matt Hoffmeister  
Senior Environment Officer, Kenora Area  
Ministry of the Environment, Conservation and Parks  
808 Robertson Street  
Kenora, ON P9N 1X9  
Via email; Matt.Hoffmeister@ontario.ca

Dear Mr. Hoffmeister,

**RE: Teeple Diversion Fish Kill – SAC Reference #1-C7NNX**

At 0800 on April 9th, the New Gold Environment Department was made aware of a possible fish kill event in the Teeple Diversion. The Teeple Diversion is part of Offset fish habitat created to make up for habitat that was destroyed during creation of Rainy River Mine infrastructure.



Photo 1: Teeple Diversion at the location of the fish kill (water quality meter and sample bottle present)

An estimated 500 dead minnows (mainly Brook Stickleback) were found in the last pool and riffle in the Teeple Diversion. Several other pools were inspected, and dead fish were not found anywhere else. Clark Diversion and West Creek Diversions were also inspected, and no dead fish were found in those structures nor in any of the associated ponds.



Photo 2: Dead fish on bottom of pool in Teeple Diversion.

A surface water sample and an acute toxicity sample were collected on this day to try and determine the cause of the fish kill. Initial field water quality readings showed no obvious cause for the fish kill with dissolved oxygen levels being 69.4% and temperature being 5.39 degrees Celsius, pH and conductivity were within normal ranges as well. A follow up letter will be submitted when results are finalized.

46.8 mm of rain was recorded at the Barwick weather station in the 72 hours prior to this event. Based on the state of decay of the fish collected it is hard to estimate exactly when this occurred. Prior conditions were very dry for an extended period, due to low snowpack and warm, dry conditions. Approximately 550 meters downstream of this location is Surface Water Site 28 (SW28) and it was last sampled on 2021-03-24 which was during these dry conditions. Based on field meter data the conditions at either location are similar however no fish kill was noted at SW28 during that time. Live fish showing no signs of stress were observed during the collection of the sample in the Teeple Diversion at the same location as the fish kill and at other areas in the diversion.



Currently the most likely explanation for the fish kill is anoxic shock due to large numbers of fish being present in the diversion and low flow conditions prior to the rain. The number of fish competing for oxygen plus the waste they would be producing can cause stress in fish and lead to a fish kill. No effluent discharges or site runoff enters Teeple or upstream Clark Creek systems, essentially, they are outside the influence of Rainy River Mine however they were constructed by New Gold to regulator specifications.

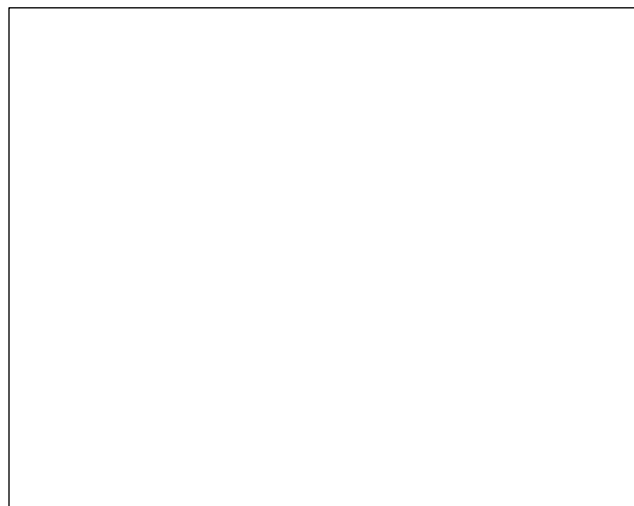
Until sample results have been received and reviewed it is suspected that this fish kill is related to anoxic shock and a natural event due to atypical weather conditions. Normal monitoring will continue unless a cause related to mining operations is discovered which, in that event, a solution will be sought and implemented.

Once you have the opportunity to review this report, please contact the undersigned at (807) 271-3190 or Sylvie St-Jean at (807) 707-3497 with any questions or concerns.

Regards,

<original signed by>

Environmental Specialist –Wildlife



CC: Christine Kent, MNRF  
Lauren Phalen, DFO

May 21, 2021

Jason Tittlemier  
Senior Environmental Officer  
Ministry of Environment, Conservation and Parks  
808 Robertson Street, 2<sup>nd</sup> Floor  
Kenora, ON P9N 1X9

Dear Mr. Tittlemier,

**EXCEEDANCE OF APPROVED DISCHARGE VOLUME AT SEDIMENT POND 2**

On the morning of May 14, 2021, when the Senior Water Resource Engineer was preparing the Daily River Flow discharge calculation, it was observed that Sediment Pond 2 had exceeded the allowable daily discharge for May 13, 2021 by 465 m<sup>3</sup>. The approved discharge volume was 5,695 m<sup>3</sup> and the actual volume discharged was 6,160 m<sup>3</sup>.

The investigation discovered that the approved discharge volume had been discussed with the crew maintaining the discharge pump but the changes to the flow rate did not occur when the pump went down for maintenance. This mistake was not identified until the total volume was submitted to calculate the flow for May 14, 2021.

To mitigate this issue in the future, all crews maintaining the discharge pumps will submit a follow up email to the Senior Water Resource Engineer acknowledging the change in allowable discharge volume and the new adjusted flow rate that the discharge pump has been adjusted to.

If you require further information or have any questions you can reach out to the undersigned at (807) 276-0106 or [Garnet.Cornell@newgold.com](mailto:Garnet.Cornell@newgold.com).

Sincerely,

<original signed by>

**Garnet Cornell**  
Environment Superintendent

September 13, 2021

Jason Tittlemier  
 Senior Environmental Officer  
 Ministry of Environment, Conservation and Parks; Kenora Area Office  
 808 Robertson Street  
 Kenora, ON P9N 1X9

Dear Mr. Tittlemier,

**NOTIFICATION OF EXCEEDANCE: PM2.5 EXCEEDANCE OF BENCHMARK 1 VALUE (STANDARD) ON JULY 15, 2021 AT THE TAIL ROAD MONITORING STATION**

As discussed on the phone on September 9, 2021, please see attached Notification of Exceedance regarding a PM2.5 exceedance of the Standard Benchmark 1 Value (135%) on July 15, 2021 at the New Gold Rainy River Mine (RRM) Tail Road Monitoring Station.

The cause of the exceedance is due to the increased smoke in the area from local wildfires. The other two PQ200 units at RRM also measured very high readings that day (97% and 99%). Below I have also attached the E-Sampler readings for the day which show consistently elevated total suspended particulate readings over the 24 hours from July 15, 2021.

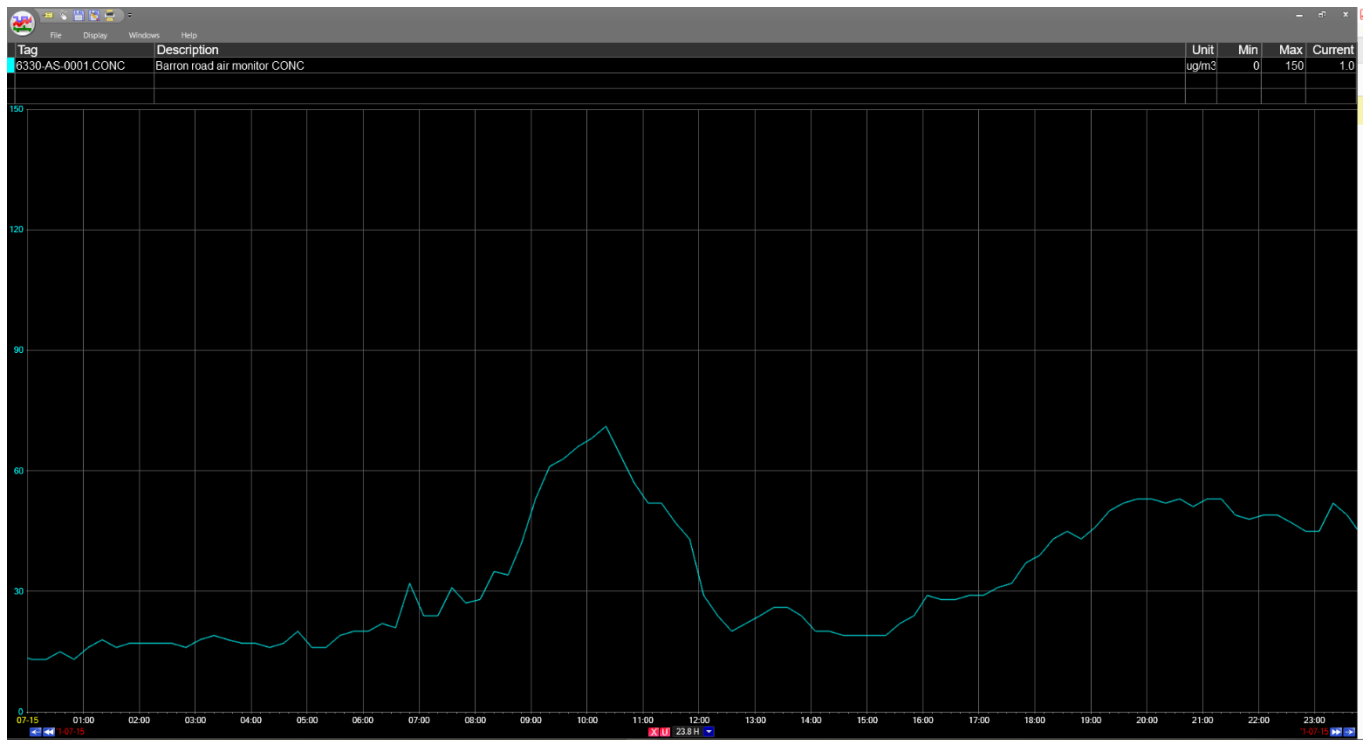


Figure 1 Barron Site E-Sampler readings for July 15, 2021 (ug/m3)

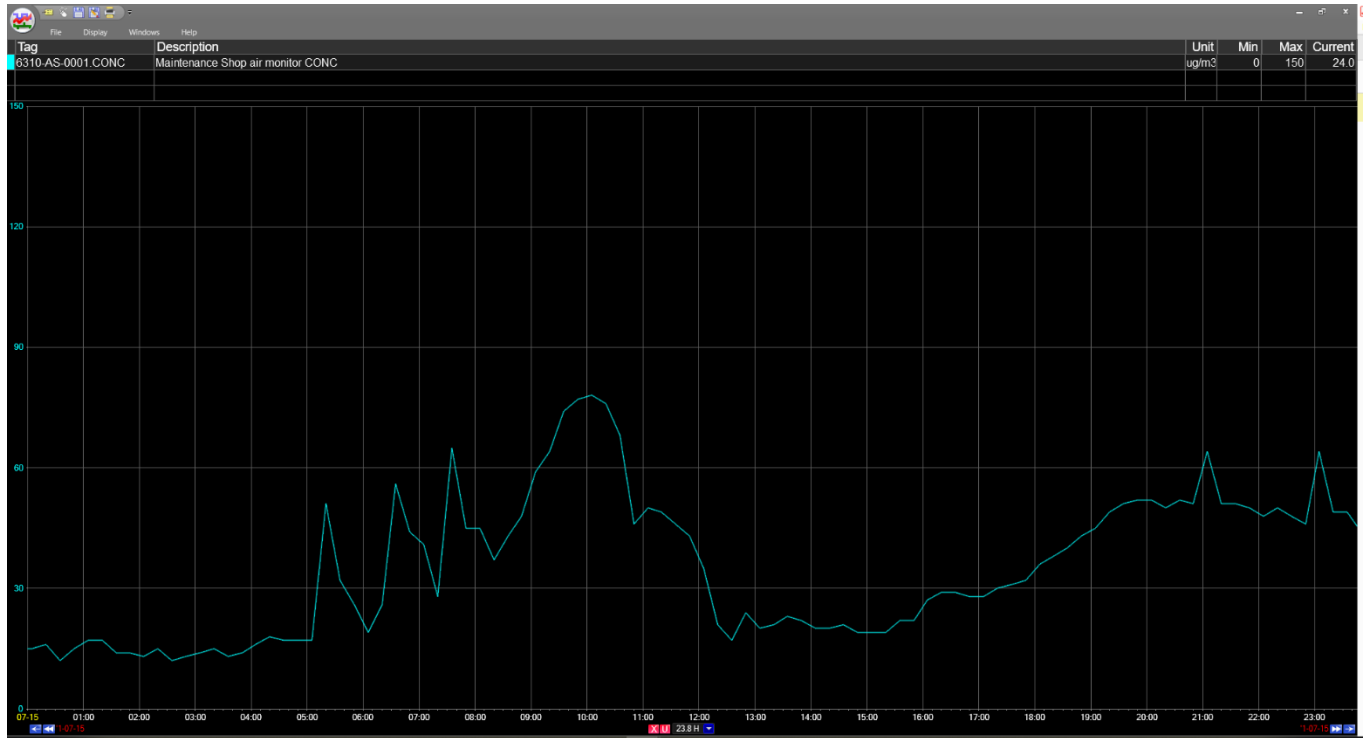


Figure 2 Gallinger Road E-Sampler readings from July 15, 2021 (ug/m3)

Should you have any questions, please do not hesitate to contact the undersigned at: [Garnet.Cornell@newgold.com](mailto:Garnet.Cornell@newgold.com) or (807) 276-0106.

Respectfully submitted,

<original signed by>

**Garnet Cornell**  
Environment Superintendent



October 29, 2021

Jason Tittlemier  
 Senior Environmental Officer  
 Ministry of Environment, Conservation and Parks; Kenora Area Office  
 808 Robertson Street  
 Kenora, ON P9N 1X9

Dear Mr. Tittlemier,

**NOTIFICATION OF EXCEEDANCE: PM2.5 EXCEEDANCE OF BENCHMARK 1 VALUE (STANDARD) ON AUGUST 2, 2021 AT THE GALLINGER AND NORTHWEST MONITORING STATIONS**

As per the voicemail left on October 27, 2021, please see attached Notification of Exceedance regarding a PM2.5 exceedance of the Standard Benchmark 1 Value on August 2, 2021 at the New Gold Rainy River Mine (RRM) Gallinger and Northwest Monitoring Stations of 150.3% and 137.1%, respectively.

The cause of the exceedance is due to the increased smoke in the area from local wildfires. The third air quality station, Tait Road Monitoring Station, also reported a high sample reading of 53.38  $\mu\text{g}/\text{m}^3$  but was deemed to be an invalid sample due to exceeding the total volume limit. Below I have also attached the E-Sampler readings for the day which show consistently elevated total suspended particulate readings over the 24 hours as well as an Air Quality Advisory for International Falls for August 2, 2021. I have also included the Coarse Ore Stockpile height during those 24 hours.

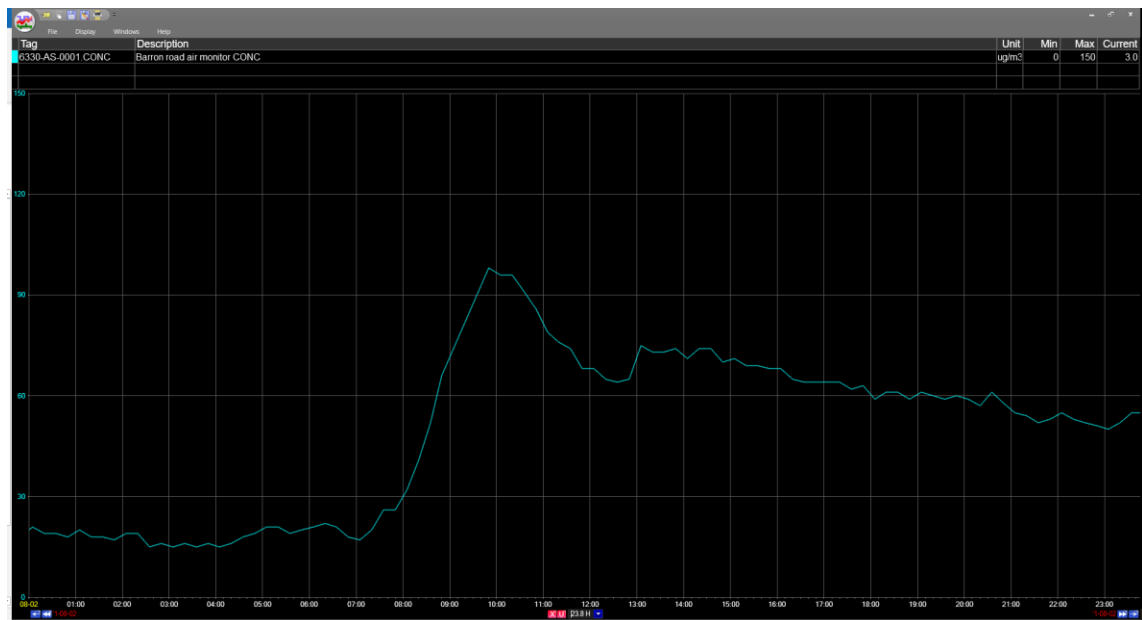


Figure 1 Barron Site E-Sampler readings for July 15, 2021 ( $\mu\text{g}/\text{m}^3$ )

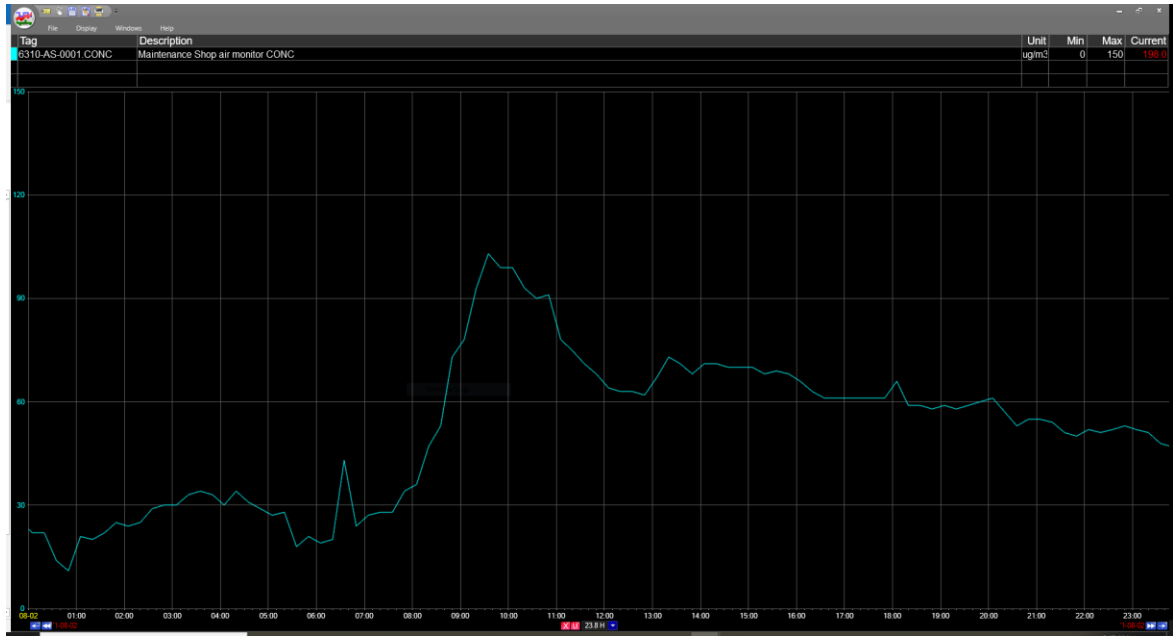


Figure 2 Gallinger Road E-Sampler readings from August 2, 2021 ( $\mu\text{g}/\text{m}^3$ )

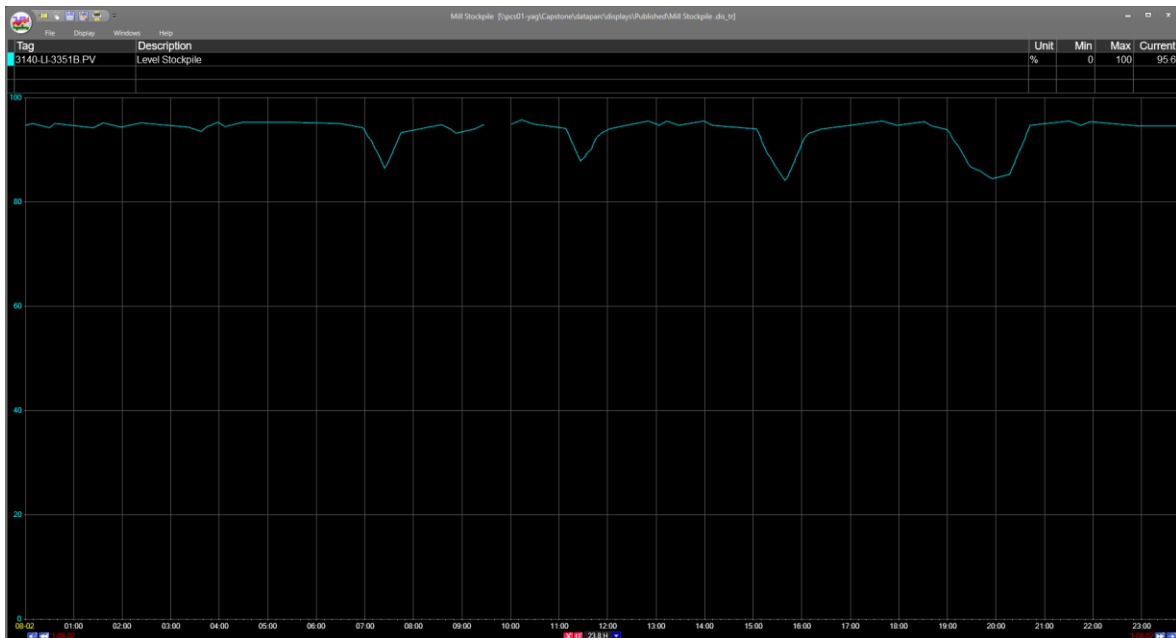


Figure 3 Coarse Ore Stockpile height from August 2, 2021 ( $\mu\text{g}/\text{m}^3$ )

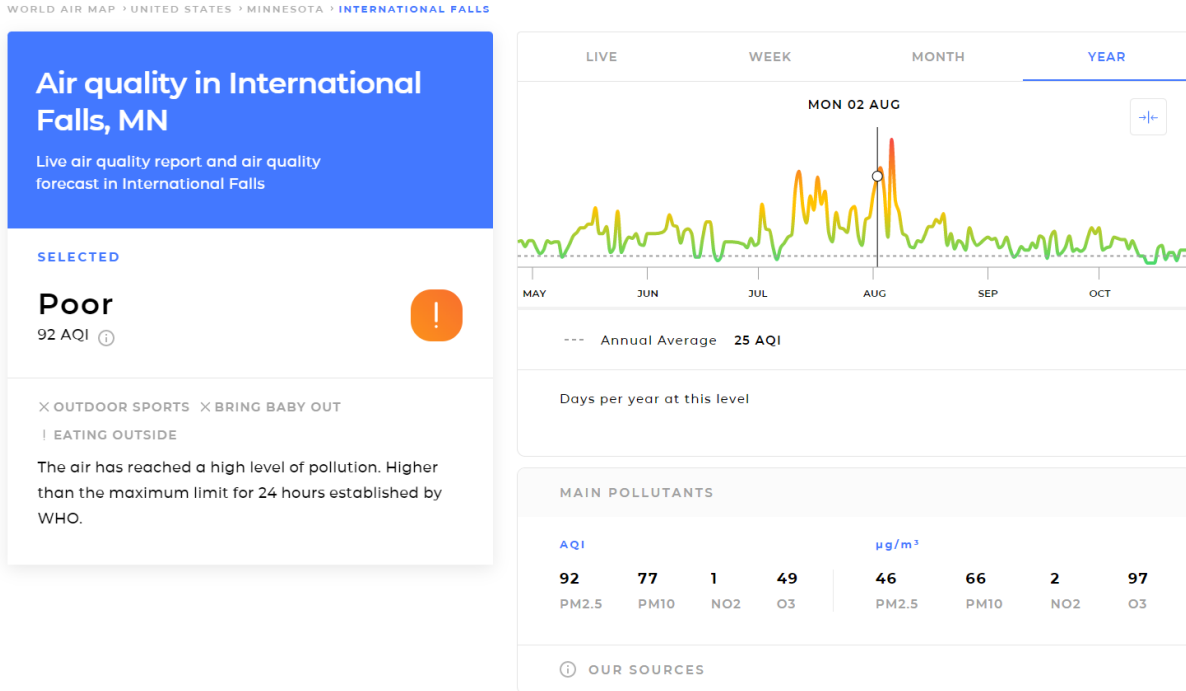


Figure 4 Air Quality advisory for International Falls, MN for August 2, 2021.

Should you have any questions, please do not hesitate to contact the undersigned at: [Garnet.Cornell@newgold.com](mailto:Garnet.Cornell@newgold.com) or (807) 276-0106.

Respectfully submitted,

<original signed by>

**Garnet Cornell**  
Environment Superintendent

2021-09-16

Jason Tittlemier  
Senior Environment Officer, Kenora Area  
Ministry of the Environment, Conservation and Parks  
808 Robertson Street  
Kenora, ON P9N 1X9  
Via email; Jason.Tittlemier@ontario.ca  
Cc; Matt.Hoffmeister@ontario.ca

Dear Mr. Tittlemier,

**RE: Outflow Basin Pipeline Drain Point Incident – SAC Reference #1-18QGA5**

At 1215 on September 9th, during a site tour with yourself, a valve on the pipeline supplying water from Water Management Pond (WMP) to BCR2 was found leaking. Water samples were collected, and a bucket test was performed to estimate the volume of water lost.



Photo 1: Leaking valve.

The bucket test indicated a total loss of 33.6 m<sup>3</sup> of water, if we assume the leak started immediately after the valve was last observed functioning at 10 am, the previous day, by New Gold Environment staff during water level checks. Given the



distance to fish bearing waters from this point (1.4 km), the volume of water lost and the extreme dry conditions of the year is it unlikely that this water reached fish bearing waters.

At the time of writing this letter early water sample results indicate all parameters are within acceptable levels. Acute toxicity testing results will not be available for a few more days but if those results should indicate a failure, MECP will be notified.

No cleanup was attempted for this event as it would have caused more harm than good to the surrounding environment. To prevent this from reoccurring a different style of valve will be selected or an isolation valve will be added.

Once you have the opportunity to review this report, please contact the undersigned at (807) 271-3190 or Garnet Cornell at (807) 276-0106 with any questions or concerns.

Regards,

<original signed by>

Environmental Specialist

2021-09-24

Jason Tittlemier  
Senior Environment Officer, Kenora Area  
Ministry of the Environment, Conservation and Parks  
808 Robertson Street  
Kenora, ON P9N 1X9  
Via email; Jason.Tittlemier@ontario.ca  
Cc; Matt.Hoffmeister@ontario.ca

Dear Mr. Tittlemier,

**RE: Outflow Basin Overtopping Event – SAC Reference #1-198-X3B**

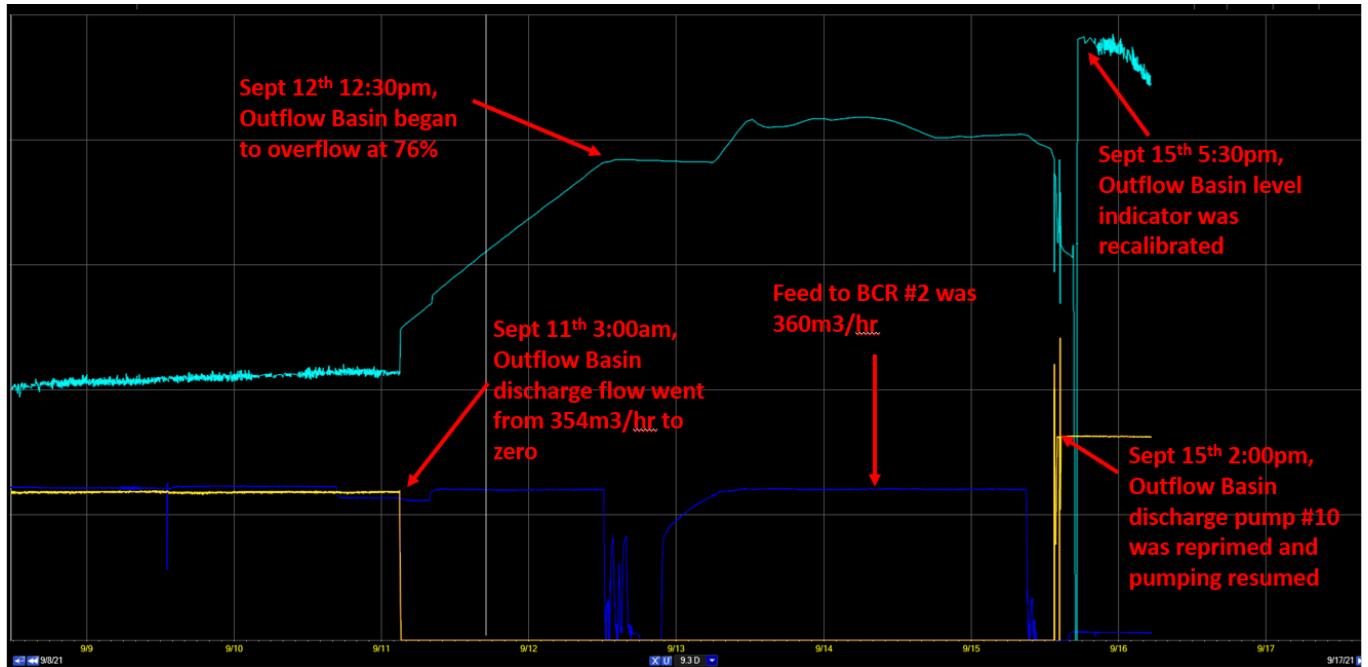
At 0930 on September 15<sup>th</sup>, the Outflow Basin (OB) was found to be filled to the point that the emergency spillway was active. The Mill was immediately informed and input from Biochemical Reactor #2 (BCR2) was stopped and pumping capacity to send water to Water Management Pond (WMP) from OB was maximized. Water samples, including acute toxicity, were collected.



Photo 1: Outflow Basin emergency spillway active.

The OB is the last structure in the water treatment train for mine effluent before discharge to the environment via the diffusers known as EDL1 and EDL2. Preliminary water quality results indicate no daily or monthly discharge criteria have been exceeded.

The volume of water lost is estimated to be 21,000 m<sup>3</sup> of treated mine effluent and would have made it to fish bearing waters in Loslo Creek and the Pinewood River. The primary reasons for this occurrence are that the pump sending water from OB to WMP lost prime and the level indicator for OB was not calibrated correctly. Please refer to the screen shot below from PARCView for greater detail and timeline.



PARCView screen shot.

An internal investigation into this event has been completed and in the table below findings and mitigations are presented.

<b>CURRENT STATE</b>	<b>DESIRED STATE</b>	<b>ACTIONS</b>	<b>BY WHEN</b>	<b>COMMENTS</b>
BCR2 overflow observed September 15th at 9am. High level alarm set at 90%.	Pond level indicator properly calibrated with two point alarm response. High and High High	Complete calibration for pond level indication. 70% high, 80% high high and 100% overflow	Completed	This was completed on September 15, 2021
Over period estimated at 59hrs at 360m3/hr	Alarm notification in control room when outflow pump #10 or #11 running but no flow indicated.	Complete alarm notification for mill control room for Outflow basin pumps #10 & #11. If pump is running and no flow an indication alarm will be initiated.	Completed	This was completed on September 16, 2021
Pond level indicator showing 75% level at time of overflow	Cameras installed at BCR2 spill zone and out flow basin spillway	Complete a proposal for camera installations at BCR2 spill zone and outflow basin spillway.	October 15, 2021	

No accountable resource for WTP/WTT	Dedicated resource for WTP / WTT	Have a metallurgical resource assigned ownership of WTP / WTT processes.	Completed	Chemical Engineer has been hired and will join the metallurgical group in October, 2021. WTP/WTT will fall under her responsibility.
Mill operations does complete field checks with itemized list for completion. Rate is (2) field checks / shift. Overflow area is not visible from road. BCR2 is not on checklist.	Inspect Outflow Basin and BCR2 water levels visually minimum 2 a shift	Add Outflow Basin and BCR2 inspections during field checks to check list	Completed	This was completed September 22, 2021

No cleanup was attempted for this event as the water quality was known to be of little or no risk to the receiving environment and recapturing such a large volume impossible. Water samples were also taken downstream to assess the impact and to ensure no visible harm to the environment. No fish kills or signs of stress in the environment were observed, and water quality of samples collected within acceptable range.

As mentioned in the table above, sensors have been recalibrated, additional personnel are being assigned responsibility, the requirement for visual observations and documentation has been made clear and cameras will be added in this location in an effort to ensure this does not reoccur.

Attached as requested are the TMA Inspection Water Storage Reports "Appendix A".

Once you have the opportunity to review this report, please contact the undersigned at (807) 271-3190 or Garnet Cornell at (807) 276-0106 with any questions or concerns.

Regards,

<original signed by>

Environmental Specialist