

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

March 11, 2022

Jason Tittlemier
Senior Environmental Officer
Ministry of the Environment, Conservation and Parks
808 Robertson St.
Kenora, ON P9N 1X9
Via email; jason.tittlemier@ontario.ca

Dear Mr. Tittlemier,

RE: Overpressure Exceedance

On Saturday March 5th, 2022, New Gold detected an overpressure exceedance of 2.7 dB(L) over the peak limit of 128.0 dB(L) during a scheduled blast in the Open Pit. A notification was received from Explotech within the monitoring report for 1340 Highway 600 dated 2022-03-05 (appendix 1).

An investigation was initiated that revealed a number of things that contributed to this exceedance.

- 1- The blast was known as a frost shot, this term is used when frost has been driven into previously blasted material to the point that it cannot be handled and loaded. The holes for a frost shot are much shallower than a typical production shot.
- 2- The blast was at a higher elevation than any blast prior, except for the original ramp that dropped into the pit below the original Laydown 7 lookout.
- 3- The sky was overcast on Saturday March 5th, which amplified the effect of the sound of the blast.
- 4- The timing in a frost shot needs to be quite a bit faster than a production shot which also increase the vibration/sound of a blast.
- 5- There was a northerly wind the day of the blast which explains why the southern most instrument detected higher levels whereas the other 3 instruments did not read levels over the peak limit of 128.0 dB(L).

See Figure 1 for Explotech sensor locations (crosshairs) and blast location (target)



Figure 1. Plan view of RRM showing the location of Explotech sensors and blast location

Frost shots at this elevation are a very rare occurrence and are not likely to occur again in the near future. Should the need arise to do another frost shot, a smaller blast with a longer delay will be planned and communities will be notified. If possible, the blast will be delayed if there are overcast conditions at the time of the blast as well. No blasts since 2022-03-05 have triggered an exceedance.

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

New Gold Rainy River Mine

April 21, 2022

Jason Tittlemier
Senior Environmental Officer
Ministry of Environment, Conservation and Parks
808 Robertson St.
Kenora, ON P9N 1X9

Dear Mr. Tittlemier,

APRIL 11, 2022 TOTAL SUSPENDED SOLIDS EXCEEDANCE AT WEST CREEK AND MARR DIVERSION CONFLUENCE

At 16:00 on April 11, 2022, Rainy River Mine Environmental Technician and Monitor observed turbid water mobilizing through Marr Diversion culverts under Roen Road and into West Creek Diversion. A turbidity reading of 45.0 NTU taken, and a total suspended solids (TSS) sample collected per the TSS/Turbidity Monitoring Plan.



Figure 1 Location of turbid water observed travelling through culverts under Roen Road into West Creek Diversion.



Figure 2 Turbid water observed travelling under Roan Road into West Creek Diversion.

Environmental Technician contacted Environmental Superintendent of the potential exceedance and was instructed to investigate upstream for the potential source and found two sediment sources. One source was found to be inadequate erosion and sediment control infrastructure around a recently constructed Tailings Management Area (TMA) seepage collection sump and the other source was sediment laden water flowing out of the TMA seepage collection sump spillway.



Figure 3 Inadequate sediment and erosion control measures at recently constructed TMA seepage pond.



Figure 4 TMA seepage pond spillway activated.

Once it was observed that the recently constructed TMA seepage sump spillway had been activated, a discharge monitoring sample kit was used to collect a sample at Marr Diversion and West Creek Diversion confluence.

Further investigation found that the Site Services team were currently dewatering the TMA seepage sump into the South Dam seepage ditch that was a French drain to drain it to the downstream South Dam seepage sump. It was observed that the French drain was not conveying the pumped volume and was draining back into the original sump activating the spillway. Site Services was made aware of the situation and mobilized a High-Volume pump to tie straight into the tailings line and pump the additional water to the TMA. The water from this TMA seepage sump stopped spilling through the spillway at approximately 04:00 April 12, 2022.



Figure 5 Red line delineates approximate path of South Dam seepage collection ditch French drain. Yellow arrow delineates approximate discharge location of dewatering pump.



Figure 6 High-Volume pump installed to discharge water straight into tailings line and into the TMA.

Investigation and Mitigation

Rapid snow melt from the open field directly north of the TMA seepage collection sump contributed to the influx of water experienced during the duration of the incident. As this TMA seepage collection sump was recently rebuilt last year, it is expected to be limited contaminants contained in it other than total suspended solids. A full sample was collected, and results will be provided once received. To mitigate this from happening in the future, the following actions are being taken.

1. Erosion and sediment control measures will be upgraded around the newly constructed sump to include a combination of coir logs, erosion blanket, and seeding.
2. A hardline pipe will be installed from the TMA seepage collection sump over the TMA South Dam and will discharge directly into Cell 3.
3. An electric pump will be installed in the TMA seepage collection sump with a float switch that will pump excess water into Cell 3 with the hardline pipe. This pump will be sized accordingly

newgoldTM Rainy River

to deal with the excess water experienced during this incident. High-Volume pump used during the incident will remain in place until second electric pump is installed.

4. New Engineer-of-Record will review TMA South Dam seepage collection system as-builts and provide recommendations if necessary.

Total suspended solids results were received for both the single total suspended solids sample collected at 16:00 and the full discharge sample kit sampled at 16:30 from the Marr Diversion and West Creek confluence. They were 21.0 mg/L and 38.0 mg/L, respectively. Additional total suspended solids samples were collected at 08:20 on April 12, 2022 at Marr Diversion and West Creek Diversion confluence and SW26 and were analyzed to be 5.0 mg/l and 6.0 mg/L, respectively. Limited plume migration was observed downstream of the Marr Diversion and West Creek Diversion confluence at the time of the incident and no environmental effects have been observed downstream to date.

Please do not hesitate to reach out to the undersigned by phone, (807) 276-0106 or by email, Garnet.Cornell@newgold.com if you have any questions or concerns.

Respectfully submitted,

<original signed by>

Garnet Cornell
Environment Superintendent

June 24, 2022

Melissa Hagmann
Enforcement Officer, Enforcement Branch
Environment Canada
335 River Road
Ottawa, ON K1V 1C7
Via email: melissa.hagmann@canada.ca

**Re: Emergency Dump Pond #3 and North Dam Seepage Collection Pond #3
Unplanned Effluent Release – SAC Reference #1 - 1RWVOG**

Pursuant to Section 31 of the *Metal and Diamond Mining Effluent Regulations* (MDMER), New Gold is submitting this report in follow up the unplanned effluent release from Emergency Dump Pond #3 (EDP3) and North Dam Seepage Collection Pond #3 (Seepage3) from April 23, 2022 to April 24, 2022 and April 24, 2022 to May 3, 2022, respectively (SAC Reference #1-1RWVOG).

This report includes all information required under Section 31 of the MDMER:

- (a) *the name, description and concentration of the deleterious substance deposited*
- (b) *the estimated quantity of the deposit and how the estimate was achieved;*
- (c) *the day on which, and hour at which, the deposit occurred;*
- (d) *the quantity of the deleterious substance that was deposited at a place other than through a final discharge point and the identification of that place, including location by latitude and longitude and, if applicable, the civic address;*
- (e) *the quantity of the deleterious substance that was deposited through a final discharge point and the identification of the final discharge point;*
- (f) *the name of the receiving body of water, if there is a name, and the location by latitude and longitude where the deleterious substance entered the receiving body of water;*
- (g) *the results of the acute lethality tests conducted under subsection 31.1(1) or statement indicating that acute lethality tests were not conducted but that notification was given under subsection 31.1(2);*
- (h) *the circumstances of the deposit, the measures that were taken to mitigate the effects of the deposit and, if the emergency response plan was implemented, details concerning its implementation; and*
- (i) *the measures that were taken, or that are intended to be taken, to prevent any similar occurrence of an unauthorized deposit.*

Notification of the unplanned effluent release was made to the Ontario Spills Action Centre (SAC) on April 24, 2022 at 10:01 am with a follow up call from Jason Tittlemier, MECP Senior Environment Officer April 25, 2022 at 8:28 am to discuss the incident and Rainy River Mine's water situation. A voicemail was left with yourself on April 25, 2022 at 10:02 am and you returned the call April 26, 2022 at 9:01 am where we discussed the incidents.

For ease of reporting, the required information under Section 31 of the MDMER is presented in the order in which it is appears in the regulation.

MDMER Section 31:

(a) *the name, description and concentration of the deleterious substance deposited;*

A weekly discharge sample was collected on April 25, 2022 at both EDP3 and Seepage3. The concentrations of the prescribed deleterious substances as identified in Section 3 of the MDMER are provided in Table 1. Acute toxicity testing was also collected and was non-acutely lethal to both Rainbow Trout and *Daphnia magna*. Certificates of Analysis are attached to this report.

Table 1: Emergency Dump Pond #3 Unplanned Effluent Release Deleterious Substance Concentrations

Parameter	Reported Detection Limit	Emergency Dump Pond #3 April 25, 2022	MDMER Schedule 4 Maximum Authorized Concentration in a Grab Sample	MDMER Schedule 4 Maximum Authorized Monthly Mean Concentration
pH	0.10	7.90	6.0-9.5	6.0-9.5
Arsenic, Total (mg/L)	0.00010	0.00169	0.20	0.10
Copper, Total (mg/L)	0.00050	0.00225	0.20	0.10
Cyanide, Total (mg/L)	0.0020	0.0272	1.00	0.50
Lead, Total (mg/L)	0.000050	0.00040	0.16	0.08
Nickel, Total (mg/L)	0.00050	0.00100	0.50	0.25
Zinc, Total (mg/L)	0.0030	0.0068	0.80	0.40
Total Suspended Solids	3.0	20.5	30.00	15.00
Radium-226 (Bq/L)	0.0051	0.0054	1.11	0.37
Un-ionized Ammonia (mg/L)	0.010	0.002	1.00	0.50

Table 2: North Dam Seepage Collection Pond #3 Unplanned Effluent Release Deleterious Substance Concentrations

Parameter	Reported Detection Limit	North Dam Seepage Collection Pond #3 April 25, 2022	MDMER Schedule 4 Maximum Authorized Concentration in a Grab Sample	MDMER Schedule 4 Maximum Authorized Monthly Mean Concentration
pH	0.10	7.83	6.0-9.5	6.0-9.5
Arsenic, Total (mg/L)	0.00010	0.000925	0.20	0.10
Copper, Total (mg/L)	0.00050	0.00315	0.20	0.10
Cyanide, Total (mg/L)	0.0020	0.0018	1.00	0.50
Lead, Total (mg/L)	0.000050	0.00034	0.16	0.08
Nickel, Total (mg/L)	0.00050	0.00112	0.50	0.25
Zinc, Total (mg/L)	0.0030	0.0070	0.80	0.40
Total Suspended Solids	3.0	6.5	30.00	15.00
Radium-226 (Bq/L)	0.0045	0.0063	1.11	0.37
Un-ionized Ammonia (mg/L)	0.010	<0.001	1.00	0.50

(b) *the estimated quantity of the deposit and how the estimate was achieved;*

The amount of effluent that was released from EDP3 was estimated to be 37,128 m³ over ~ 26 hours. This estimate was achieved utilizing the engineered drawings, the observed maximum water depth during release in the spillway (~0.05 m), an online flow discharge

calculator, and the observed timeframe from the New Gold employee operating the pump at EDP3.

The amount of effluent that was released from Seepage3 was estimated to be 8,438,256 m³ over 225 hours. This estimate was achieved utilizing the engineered drawings, the observed maximum water depth during the release in the spillway (0.8 m), an online flow discharge calculator, and the observed timeframe from the New Gold employee operating the pumps at Seepage3.

It should be noted that this estimate is an overestimation. Due to the high precipitation during that month, the local topography outside of the engineered catchment area for Seepage3 was oversaturated and flooded the area including the pond.



Figure 1 April 25, 2022 water build up around Seepage3.

(c) *the day on which, and hour at which, the deposit occurred;*

The unplanned effluent deposit at EDP3 is believed to have begun on the morning of April 23, 2022 before 10:30 am (10:00 am estimate used for quantity calculation). A New Gold employee fueling and checking operation of the pump observed the water flowing out of the spillway and reported it to their supervisor who contacted the Environment Department.

The unplanned effluent deposit at Seepage3 was observed flowing over the spillway at 10:30 am on April 24, 2022. It was noted the previous day that the water level was rising rapidly and the electric pump in the wet well could not keep up. To mitigate this a 6" diesel pump was installed to supplement the dewatering effort. By the morning of April 24, both the 6" diesel pump and electric pump were

overwhelmed. A larger 8" diesel pump was mobilized and installed to maximize flow (this is the highest flow pump available). By May 3, 2022 at 7:00 pm, the pond had been drawn below the spillway elevation.

(d) *the quantity of the deleterious substance that was deposited at a place other than through a final discharge point and the identification of that place, including the location by latitude and longitude and, if applicable, the civic address;*

The quantities of the MDMER Section 3 prescribed deleterious substances, as calculated mass loadings utilizing the mass loading formula in MDMER Section 20(1), are provided in Table 2. The location of the deposit at EDP3 at zone 15U E424399.06, N5411825.73 and at Seepage3 at zone 15U E419979.45, N5412951.80.



Figure 2 Seepage3 and EDP3 locations around Tailings Management Area.

Table 3: Mass Loadings of MDMER Section 3 Prescribed Deleterious Substances for Emergency Dump Pond #3 Unplanned Effluent Discharge

Prescribed Deleterious Substances	Emergency Dump Pond #3 Concentration (mg/L) April 25, 2022	Volume of Effluent (m ³)	Mass Loading (kg)
Arsenic, Total	0.00169	37,128	0.0627
Copper, Total	0.00225		0.0835
Cyanide, Total	0.0272		1.0100
Lead, Total	0.00040		0.0150
Nickel, Total	0.00100		0.0371
Zinc, Total	0.0068		0.2525
Total Suspended Solids	20.5		761.124
Radium-226	0.0054		0.2005
Un-ionized Ammonia	0.002		0.0743

Table 4: Mass Loadings of MDMER Section 3 Prescribed Deleterious Substances for North Dam Seepage Collection Pond #3 Unplanned Effluent Discharge

Prescribed Deleterious Substances	North Dam Seepage Collection Pond #3 Concentration (mg/L) May 13, 2020	Volume of Effluent (m ³)	Mass Loading (kg)
Arsenic, Total	0.000925	8,438,256	7.8054
Copper, Total	0.00315		26.5805
Cyanide, Total	0.0018		15.1889
Lead, Total	0.00034		2.8690
Nickel, Total	0.00112		9.4508
Zinc, Total	0.0070		59.0678
Total Suspended Solids	6.5		54848.664
Radium-226	0.0063		53.1610
Un-ionized Ammonia	0.001		8.4383

(e) *the quantity of the deleterious substance that was deposited through a final discharge point and the identification of the final discharge point;*

Not applicable.

(f) *the name of the receiving body of water, if there is a name, and the location by latitude and longitude where the deleterious substance entered the receiving body of water;*

The receiving body of water for EDP3 would be the West Creek Diversion at zone 15U E424472.34 N5411747.52 and for Seepage3 would be McCallum Creek at zone 15U E418422.24 N5413096.69. The effluent would have to travel approximately 100m to West Creek Diversion and 1500m to McCallum Creek.

(g) *The results of the acute lethality tests conducted under subsection 31.1(1) or a statement indicating that acute lethality tests were not conducted but that notification was given under subsection 31.1(2);*

The acute lethality test results for Rainbow Trout and *Daphnia magna* were both 0% mortality at the end of the test. The results are included in the Certificate of Analysis found in Appendix 1.

(h) *the circumstances of the deposit, the measures that were taken mitigate the effects of the deposit and, if the emergency response plan was implemented, details concerning its implementation;*

The region had been experiencing higher than average rainfall for the month of April which led to oversaturated ground conditions. On April 23 and 24, 2022, Rainy River Mine experienced a rain event of 81mm over 48 hours. Due to the saturated ground conditions, all water from this rain event reported directly to our infrastructure and overwhelmed the pumps at these sites.

At EDP3, the pond had been pumped dry before the rain event on April 22, 2022 and a larger pump installed in preparation for the rain. The pump was started at 7:00 am when the pond was observed to be rising. Due to conditions mentioned above the pump was overwhelmed by mid-morning when the water started to flow out the spillway. Pumping continued throughout the day and night until water ceased flowing through the spillway by 12:00 April 24, 2022.

At Seepage3 it was observed that the water level was approximately one foot below the spillway on April 23, 2022 and the electric pump installed per design could not keep up. A 6" diesel pump was installed to help draw down the water but on April 24, 2022, it was observed that the spillway had activated and the surrounding low-lying wetland had started to inundate the pond. An 8" diesel pump was then mobilized to maximize dewatering efforts until the flow through the spillway ceased on May 3, 2022 at 5:00 pm.

Table 5: Total precipitation for the region compared to climate normal.

2022	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
Daily Average (°C)	-18.8	-18.3	-5.5	1.2	11.3	15.2
Difference (°C)	-3.5	-6.7	-1.1	-3.2	-0.1	-1.2
Avg Maximum (°C)	-12.4	-11.1	0	5	17	22
Avg Minimum (°C)	-25.2	-25.5	-11	-2.6	5.6	8.3
Extreme Maximum (°C)	-3.5	3.5	12.5	11	25	33.5
Extreme Minimum (°C)	-39	-41	-33.5	-12	-1	2
Days Without Precipitation	19	13	22	16	14	15
Rainfall (mm)	0	0	0	115.6	132.4	38.6
Snowfall (cm)	18.2	36.2	9.4	24.6	0	0
Precipitation (mm)	18.2	36.2	9.4	140.2	132.4	38.6
1981-2010 Normal Precipitation (mm)	29.8	21.3	29.8	39.2	76.2	124.7
Difference from Normal Precipitation (%)	-38.9	70.0	-68.5	257.7	73.8	-69.0

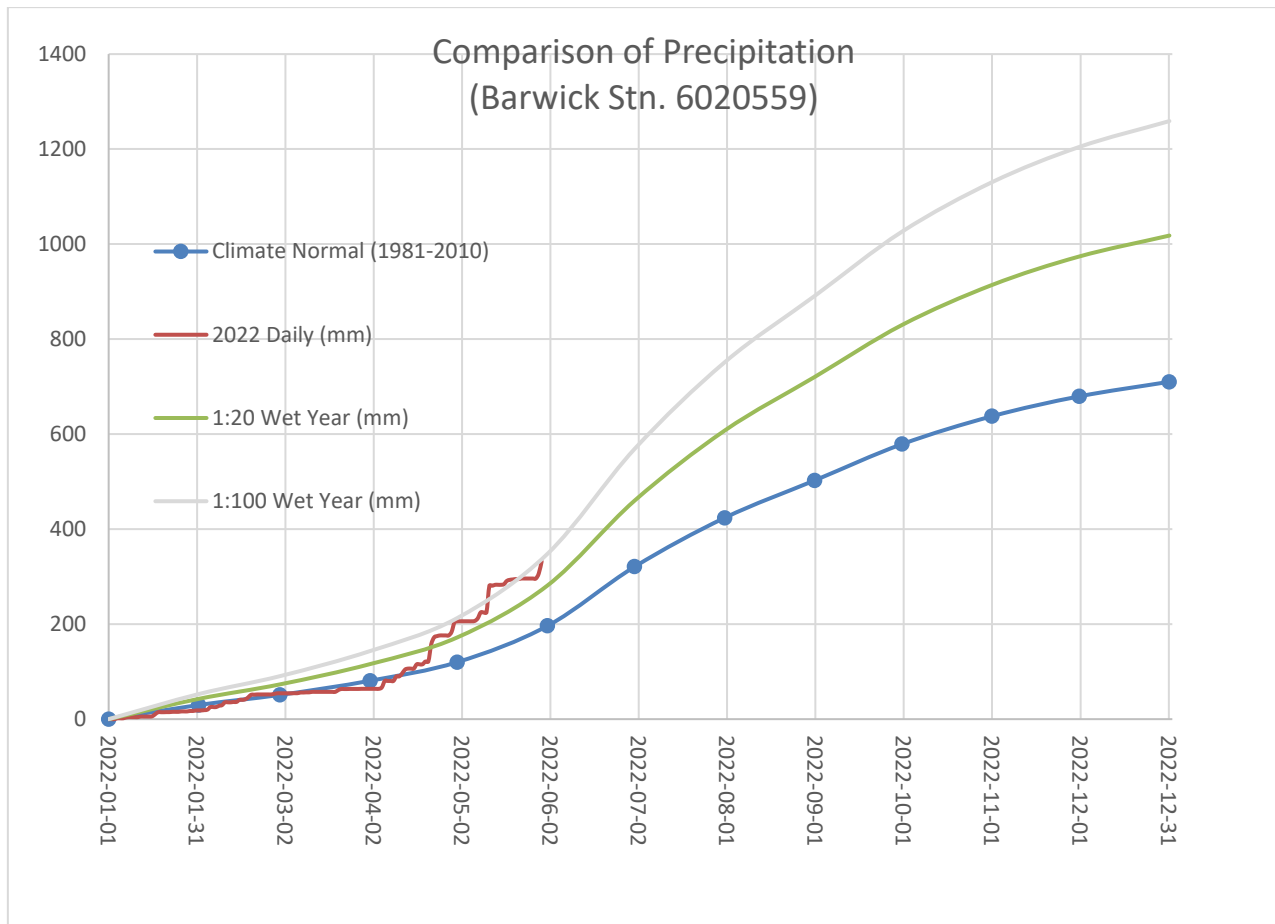


Figure 3 Current precipitation compared to climate normal and Wet Year classifications.

(i) *the measures that were taken, or that are intended to be taken, to prevent any similar occurrence of an unauthorized deposit.*

The mitigation measures implemented include:

- Both EDP3 and Seepage3 will undergo a design review by new EOR this year to assess if design meets the 1:25 year design criteria.
- Daily monitoring of weather conditions and expected precipitation.
- Pumps will continue to be staged at both EDP3 and Seepage3 during Spring and Fall rainy seasons.

We trust that this report satisfies the MDMER Section 31 reporting requirement. Should there be any questions, please contact the undersigned at 807-276-0106, or at garnet.cornell@newgold.com.

Sincerely,

<original signed by>

Garnet Cornell
Environment
Superintendent
New Gold, Rainy River
Mine

cc: Jason Tittlemeir, MECP via email
IAAC Compliance via email
Amelia Corrigan, DFO via email

April 27, 2022

Jason Tittlemier
Senior Environmental Officer
Ministry of the Environment, Conservation and Parks
808 Robertson St.
Kenora, ON P9N 1X9
Via email; jason.tittlemier@ontario.ca

SUBJECT: Notice of WDP, South Pond and Sediment Pond 1 NOWL Exceedance

Dear Mr. Tittlemier,

As per condition 4 (12) of ECA #2290-CAVKGN, the purpose of this letter is to formally notify the Ministry about the South Pond, WDP and Sediment Pond 1 NOWL exceedances and the plan to return the water levels below the NOWL.

As of April 23rd, 2022, a water spill was identified in South Pond. The spill started around 11:00 am and stopped around 10:00 pm. The spill flow was estimated in the orders of hundreds of liters per second up to 2:00 pm, after that time the spill flow significantly dropped until it finally stopped around 10:00 pm. The water level at 12:00 pm was recorded at 363.00 masl compared to the NOWL of 362.80 masl, during this event all water pumped to South Pond was stopped. As of April 26th, 2022, the water level at South Pond has gone down to 362.59 masl.

As of April 25th, 2022, the water level at WDP and Sediment Pond 1 has exceeded the respective NOWLs. The WDP water level was measured at 354.06 masl compared to the NOWL of 354.00 masl, and Sediment Pond 1 water level was measured at 352.83 masl compared to the NOWL of 352.70 masl.

In order to bring the water level below the NOWL, a pump was installed at the WDP to pump water from the WDP into the TMA at 380 m³/h. Through a different line, a pump was installed at Sediment Pond 1 and water is transferred to the TMA at a rate of 330 m³/h. As of April 26th, 2022, the water level at WDP has gone down to 354.05 masl, and at Sediment Pond 1 the level has gone down to 352.77 masl.

Once you have had the opportunity to review this document, please feel free to contact me at (807) 482-234-8170 or Garnet.Cornell@newgold.com with any questions or concerns.

Regards,

<original signed by>

Garnet Cornell
Environment Superintendent
New Gold, Rainy River Mine

cc. Gustavo Valencia (Gustavo.Valencia@newgold.com)

April 29, 2022

Jason Tittlemier
Senior Environmental Officer
Ministry of the Environment, Conservation and Parks
808 Robertson St.
Kenora, ON P9N 1X9
Via email; jason.tittlemier@ontario.ca

SUBJECT: Notice of Mine Rock Pond NOWL Exceedance

Dear Mr. Tittlemier,

As per condition 4 (12) of ECA #2290-CAVKGN, the purpose of this letter is to formally notify the Ministry about the Mine Rock Pond (MRP) NOWL exceedance and the plan to return the water levels below the NOWL.

As of April 28th, 2022, the water level at MRP has exceeded the respective NOWLs. The MRP water level was measured at 356.814 masl compared to the NOWL of 356.8 masl.

The water level was brought below the NOWL (measured at 356.776 masl) on April 29, 2022, by continued pumping through the 16 inch South ring main line at an approximate rate 600 m³/hr as well as ceasing all pumping inputs into the pond. This pond will continue to be managed this way to maintain water runoff capacities from East Mine Rock Stockpile through the current wet conditions.

Once you have had the opportunity to review this document, please feel free to contact me at (807) 482-234-8170 or Garnet.Cornell@newgold.com with any questions or concerns.

Regards,

<original signed by>

Garnet Cornell
Environment Superintendent
New Gold, Rainy River Mine

cc. Gustavo Valencia (Gustavo.Valencia@newgold.com)

May 4, 2022

Jason Tittlemier
Senior Environmental Officer
Ministry of the Environment, Conservation and Parks
808 Robertson St.
Kenora, ON P9N 1X9
Via email; jason.tittlemier@ontario.ca

SUBJECT: Notice of Mine Rock Pond and Sediment Pond 1 NOWL Exceedance

Dear Mr. Tittlemier,

As per condition 4 (12) of ECA #2290-CAVKGN, the purpose of this letter is to formally notify the Ministry about the Mine Rock Pond (MRP) NOWL exceedance and the plan to return the water levels below the NOWL.

As of May 2nd, 2022, the water level at MRP and Sediment Pond 1 has exceeded the respective NOWLs. The MRP water level was measured at 356.902 masl compared to the NOWL of 356.80 masl, and Sediment Pond 1 was measured at 352.767 compared to the NOWL 352.70

As of May 3, 2022, the water level at Sediment Pond 1 was brought to 352.754 masl by pumping water to the TMA at a rate of 330 m³/h. In the case of MRP, the water level raised to 356.954 masl, even though the water is being pumped through the 16-inch South ring main line at an approximate rate 500 m³/h as well as ceasing all pumping inputs into the pond. New strategies are under consideration to reduce water level and maintain water runoff capacities from East Mine Rock Stockpile through the current wet conditions.

Once you have had the opportunity to review this document, please feel free to contact me at (807) 482-234-8170 or Garnet.Cornell@newgold.com with any questions or concerns.

Regards,

<original signed by>

Garnet Cornell
Environment Superintendent
New Gold, Rainy River Mine

cc. Gustavo Valencia (Gustavo.Valencia@newgold.com)

May 25, 2022

Jason Tittlemier
Senior Environmental Officer
Ministry of the Environment, Conservation and Parks
808 Robertson St.
Kenora, ON P9N 1X9
Via email; jason.tittlemier@ontario.ca

SUBJECT: Notice South Pond and Sediment Pond 1 NOWL Exceedance

Dear Mr. Tittlemier,

As per condition 4 (12) of ECA #2290-CAVKGN, the purpose of this letter is to formally notify the Ministry about the South Pond and Sediment Pond 1 NOWL exceedances and the plan to return the water levels below the NOWL.

On May 13rd, 2022, the spillway was activated in South Pond. The spill started around 1:45 pm and stopped around 7:00 pm. The spill flow was estimated in the orders of tens of liters per second up to 6:00 pm, after that time the spill flow significantly dropped until it finally stopped around 7:00 pm. The water level at 12:00 pm was recorded at 362.896 masl compared to the NOWL of 362.80 masl, during this event an extra line was installed to increase the water pumped from South Pond to the mill. Also, the water flow coming from the Open Pit to South Pond was significantly reduced. As of May 24th, 2022, the water level at South Pond has gone down to 361.781 masl.

On May 13rd, 2022, the water level at Sediment Pond 1 has exceeded the respective NOWLs. The Sediment Pond 1 water level was measured at 352.728 masl compared to the NOWL of 352.70 masl.

In order to bring the water level below the NOWL, a pump was installed at Sediment Pond 1 and water is transferred to the TMA at a rate of 330 m³/h. As of May 24, 2022, the water level at Sediment Pond 1 has gone down to 352.571 masl with plans to start sending this water to Sediment Pond 2 for discharge to the environment.

Once you have had the opportunity to review this document, please feel free to contact me at (807) 482-234-8170 or Garnet.Cornell@newgold.com with any questions or concerns.

Regards,
<original signed by>

Garnet Cornell
Environment Superintendent
New Gold, Rainy River Mine

cc. Gustavo Valencia (Gustavo.Valencia@newgold.com)

2022-08-05

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: Accidental Discharge of EDL2 – SAC Reference #1-20S-BP1

At 0830 on July 29th, the New Gold Environmental Department was made aware that Pump #11 had been turned on in error. Pump #11 discharges Outflow Basin to EDL2 which is a permitted discharge point in the Pinewood River. This discharge occurred from 2000 hours on 2022-07-28 to 0600 hours 2022-07-29 discharging 3502 m³ of mine effluent to the Pinewood River. Water samples, including acute toxicity, were collected and the Pinewood River was observed in two locations downstream for evidence of adverse effects such as fish kill, no adverse effects were observed.



Photo 1: Pinewood River downstream of EDL2 at Surface Water location 22a.

Preliminary water quality results indicate one daily discharge criteria was exceeded. Total Zinc was found to be 0.484 mg/L which is over the daily limit of 0.348 mg/L. Acute toxicity testing showed no mortality confirming no significant adverse effects to the environment.

The decision was made on 2022-07-28 to resume discharge of water from Sediment Pond 2 and EDL1. (see attached email) After shift change Mill Nightshift operations staff turned on Pump #11 believing this pump reported to EDL1 not EDL2. Pump #11 is in the Outflow Basin and beside Pump #10 which can report to EDL1, Pump #10 was in use pumping Outflow Basin to TMA as part of a trial to treat Mine Rock Pond water with Biochemical Reactor #2 and Outflow Basin. Since Pump #10 was in use Pump #11 was turned on.



Photo 2: Outflow Basin Pumps

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

<u>CURRENT STATE</u>	<u>DESIRED STATE</u>	<u>ACTIONS</u>	<u>BY WHEN</u>	<u>COMMENTS</u>
Outflow Basin Pumps not clearly labeled with discharge location.	Outflow Basin Pumps labeled with discharge location	Add discharge location labels	2022-08-19	Both physical labels and PARCView tags
Enviro discharge email gives approved discharge volumes to discharge points	Enviro discharge email to include discharge source as well as volume	Add discharge X m ³ for 24 hours from water source X to discharge point Y (discharge 5000 m ³ from WMP to EDL1 over 24 hours) to discharge email	2022-08-19	
SOP does not exist for Mill Operations to discharge water to environment. Verbal direction is given to operators from supervisors	SOP exists and has been reviewed and signed off on by all required parties	Create an approved SOP for discharge to environment and roll out to operators	2022-08-26	

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 not feasible.

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

August 8, 2022

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

Dear Mr. Tittlemier,

EXCEEDANCE OF APPROVED DISCHARGE VOLUME AT EDL1

On the morning of August 7, 2021, when preparing the Daily River Flow discharge calculation, it was observed that EDL1 had exceeded the allowable daily discharge for August 6, 2022 by 4353 m³. The approved discharge volume was 13,485 m³ and the actual volume discharged was 17383 m³.

The investigation discovered that the approved discharge volume had been calculated using the times 7 am to 7 pm as opposed to 9 am to 9 pm. This mistake was not identified until the total volume was submitted to calculate the flow for August 7, 2022.

To mitigate this issue in the future,

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.

Sincerely,

<original signed by>

Garnet Cornell
Environment Superintendent

August 22, 2022

Jason Tittlemier
Senior Environmental Officer
Ministry of the Environment, Conservation and Parks
808 Robertson St.
Kenora, ON P9N 1X9
Via email; jason.tittlemier@ontario.ca

SUBJECT: EDL1 Water Discharge Exceedances

Dear Mr. Tittlemier,

As per condition 4 (10) of ECA #2290-CAVKGN, the purpose of this letter is to formally notify the Ministry about the water discharge exceedances through EDL1 occurred on August 7th, 2022, and August 8th, 2022.

On August 7th, 2022, the approved maximum daily discharge was 13,485 m³ of water. The approved volume was informed as usual to the discharge pump's operator via email by the Environment Department. After investigation, was determined that a miscalculation in the hourly rate of discharge was made by the operators, subsequently a volume of 17,838 m³ of water was discharged to the Pinewood River. Because of this extra 4,353 m³ of discharge, the effluent flow ratio to the flow rate of the Pinewood River during August 7th, 2022, was 1:1.3, differing from the 1:1 ratio as per condition 4 (10) of ECA #2290-CAVKGN.

On August 8th, 2022, a volume of 12,513 m³ of water was discharged to the Pinewood River. This volume exceeded by 127 m³ the approved maximum discharge of 12,386 m³. In this case the final volume of discharge is within the ± 5% of the instrument error.

Once you have had the opportunity to review this document, please feel free to contact me at (807) 234-8170 or Garnet.Cornell@newgold.com with any questions or concerns.

Regards,

<original signed by>

Garnet Cornell
Environment Superintendent
New Gold, Rainy River Mine

cc. Gustavo Valencia (Gustavo.Valencia@newgold.com)

2022-08-17

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: Spill of Ferric Chloride at BCR2 – SAC Reference #1-22-QBTI

At 1620 on August 9th, the New Gold Environmental Department was made aware that 3 spills of Ferric Chloride had occurred once a day on August 3rd, 4th, and 6th totaling an estimated 165 liters of the substance being spilled. Estimate of volume lost was based on dosing rate of the line and amount of time between one line inspection to the next, which means 165L is a worst-case scenario estimate. The main cause of these spills was a change in product which caused the metal fittings of the dosing line to corrode.



Photo 1: Location and impact of spill.

After the 3rd fitting leak, plastic fittings were installed instead of metal fittings on the dosing line. Ferrous chloride is what the dosing line was designed to use but due to supply chain issues ferric chloride was employed and the result to the fittings was unexpected.

These spills did not enter a water way and stayed localized as can be seen in the above as evidence by the damage to vegetation, no water or soil samples were collected. A Hydrovac truck was employed to clean up the area and was instructed to remove the impacted material until a change was seen in the color of the material and then remove another 30 cm depth of material. No significant rainfall was observed before cleanup was done.



Photo 2: Spill location after clean up

Options for secondary containment are being explored such as a catchment with a liner should this event happen again. Plastic fittings greatly reduce the chance of corrosion, but further protections will be added to reduce risk to the environment.

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

2022-09-29

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, Melissa.Hagmann@ec.gc.ca

Dear Mr. Tittlemier,

RE: Spill of Ferric Chloride Secondary Containment at BCR2 – SAC Reference #1-26H5SS

On September 20th, a new GIS image was posted on the New Gold GIS viewer for the Rainy River Mine Site. During a review of this image by Environmental Department staff, a discoloration was noted on the ground north of Biochemical Reactor 2 (BCR2).



Photo 1: location of spill.

Upon field inspection this was found to be caused by a drain line misplaced for the BCR2 reagent tank secondary containment. There is a drain line that is intended to be placed directly into to BCR2 from this secondary containment so that any leaks or water captured by the containment can be pumped out.



Photo 2: spill impact



Photo 3: pump found dismantled at time of inspection

Though this spill was evident in aerial imagery it remained undetected for an unknown length of time due to the topography of the area in which the spill occurred. Vegetation blocks it from line of sight from the reagent tanks and topography blocks it from the well of BCR2.



Photo 3: view of spill location from reagent tanks (BCR2 upper lefthand corner)

Clean up remains ongoing for this event as staining appears to have mobilized down the ditch between the Outflow Basin and BCR2. Options for containing this entire area with a pump back system are being explored and will be implemented once identified.



Photo 4: current state of clean up as of 2022-09-29.

At the time of required reporting clean up remains ongoing and permanent solutions are still being identified, updates will be provided regularly until this issue is resolved.

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

2022-10-18

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

Dear Mr. Tittlemier,

RE: Outflow Basin Pipeline Drain Valve Spill – SAC Reference #1-27MJDL

At 1430 on October 7th, during routine water sampling of Outflow Basin (OB) a hugger clamp for a drain valve on the pipeline supplying water to Water Management Pond (WMP) from OB was found leaking. Water samples including acute toxicity were collected, but a bucket test could not be performed to estimate the volume of water lost due to the high pressure of the leak. Mill Operations was called immediately upon discovery and the pump was shut down from the control room. This pump was turning on at 1130 that day so the duration of the spill is estimated to be 3 hours at the most.



Photo 1: Leaking hugger clamp.

There was no evidence of this spill making it to fish bearing waters, no cleanup was undertaken as it would cause more harm by introducing a sediment and erosion control risk or potential damage to infrastructure.

Once the pump was turned off and the line began depressurizing, some scrap liner found nearby was used to direct the water onto the liner of the OB, so the bulk of the water reported to OB mitigating the spill as much as possible.



Photo 2; Scrap liner used to catch spill.

Water sample results indicate that only Total Zinc exceeded its monthly average discharge limit of 0.174 mg/L with a laboratory result of 0.203 mg/L. Acute Toxicity testing passed with no issue.

A new fused valve will be installed instead of the hugger style and lining of the pump pad is being reviewed to ensure any future mechanical failures that result in leaks are captured and report to OB.

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

2022-11-14

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

Dear Mr. Tittlemier,

RE: Outflow Basin Pipeline Drain Valve Spill – SAC Reference #1-28F92D

At 1600 on October 26th, the New Gold Environment Department was made aware that a spill had occurred at Outflow Basin (OB), a hugger clamp for a drain valve was found leaking. The pump that supplies water to this pipeline was not running but the line was pressurized due to discharge pumping from Water Management Pond (WMP) to EDL2. Water samples including acute toxicity were collected, but a bucket test could not be performed as the operators that discovered the leaking valve fixed it as soon as possible. Pumping from WMP had only been active for a short time and based on the image captured below by the persons that found the leak, they estimated the volume lost to be approximately 100L.

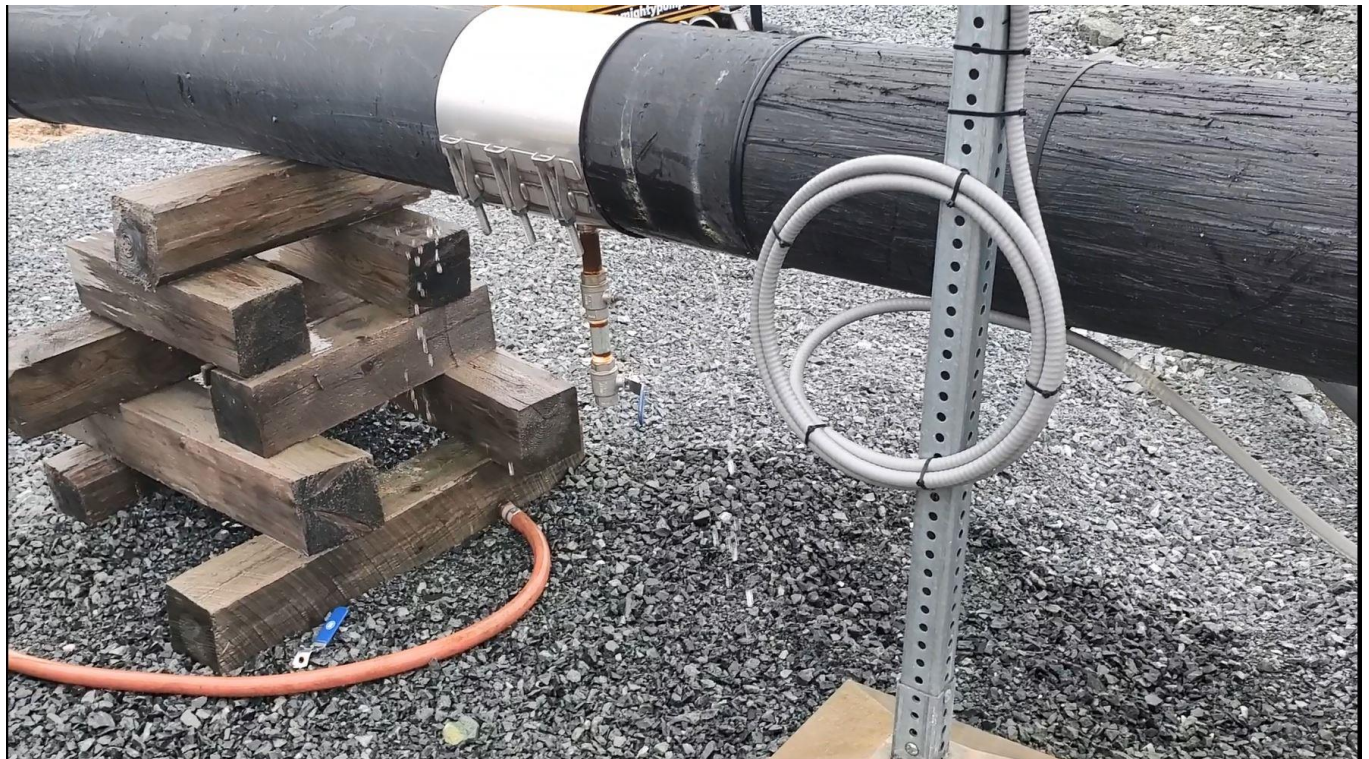


Photo 1: Leaking hugger clamp.

There was no evidence of this spill making it to fish bearing waters, no cleanup was undertaken as it would cause more harm than good by introducing a sediment and erosion control risk or potential damage to infrastructure.

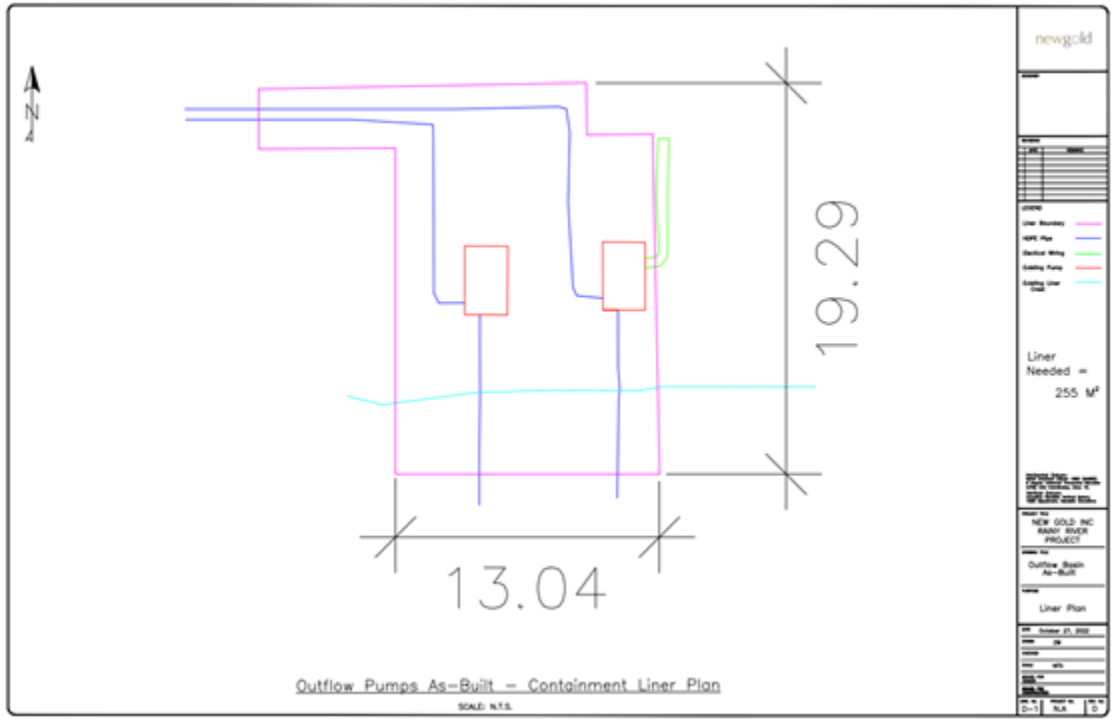


Photo 2; Liner design.

The image above shows a design plan for a liner to be installed that will encompass all potential points of failure with this infrastructure and all spills would report to OB. During winter of 2022-23 this will be installed.

Water sample results indicate that no parameters exceeded discharge limits and Acute Toxicity tested passed with no mortality or stress observed.

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

2022-12-02

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

Dear Mr. Tittlemier,

RE: Tailings Pipe Event – SAC Reference #1-29KW62

At 11:18 on November 21st, the New Gold Environment Department was made aware of a connection failure along the tailings pipeline just west of the Marr gate. As soon as the event was reported the mill shut down and tailings continued to exit out of the connection as the pressure was reduced. The majority of the material was captured inside the liner and traveled east into the sump as designed. A pump and secondary line were then utilized by site services to pump from the sump to the tailings pond to avoid an increase of water level within the sump.



Photo 1: Leak at pipe connection

An estimated 60 to 100 liters of tailings was expelled past containment and onto natural ground at the initial point of failure, while the pressure was at its peak. The area of the spill past the liner is still within a hard barricade from reaching the West Creek Diversion and any seepage will be captured further south-west in the TMA Seepage Collection Sump. As a result, there is no evidence of this spill making it to fish bearing waters.



Photo 2: Tailings captured in sump



Photo 3: Tailings north of liner

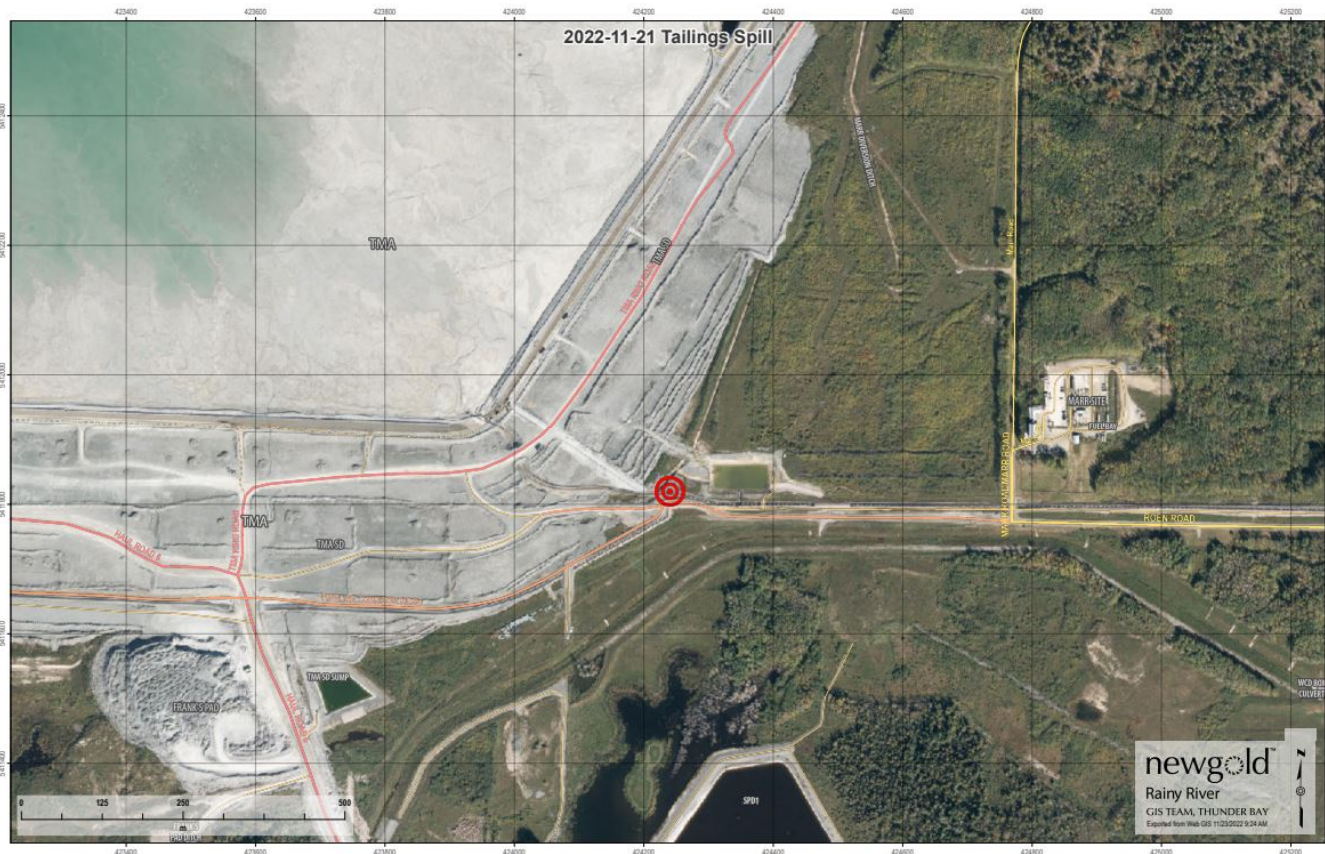


Figure 1: Location of Spill

No sampling was completed due to the consistency of the tailings outside of containment. All tailings that did not report to containment were collected with a HydroVac truck..

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

November 24, 2022

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: DUSTFALL EXCEEDANCE OF BENCHMARK 1 VALUE (STANDARD) IN AUGUST 2022 AT THE SOUTH AIR QUALITY STATION.

Please see attached Notifications of Exceedance regarding a dustfall exceedance of the Standard Benchmark 1 Value averaged over the month of August 2022, of 314.57%.

This dustfall exceedance was mostly due to high organics in the canister. Once organics were removed, the fixed dustfall concentration was 8.1 g/m³/30 days, 115.71% of the AAQC limit.



Figure 1: August 2022 South Air Quality Station dustfall canister before shipment to certified laboratory.

The sources of the August 2022 dustfall exceedance at South station are difficult to determine due to the mixed wind direction and velocity. Dust from the primary crusher to the North of the station could have been a factor, as well as dust created by the road material crusher or EMRS dumping to the Northeast. Public traffic also likely contributed. Dust suppression water trucks were available and in use on site during that time.

Wind Rose - New Gold - Barron

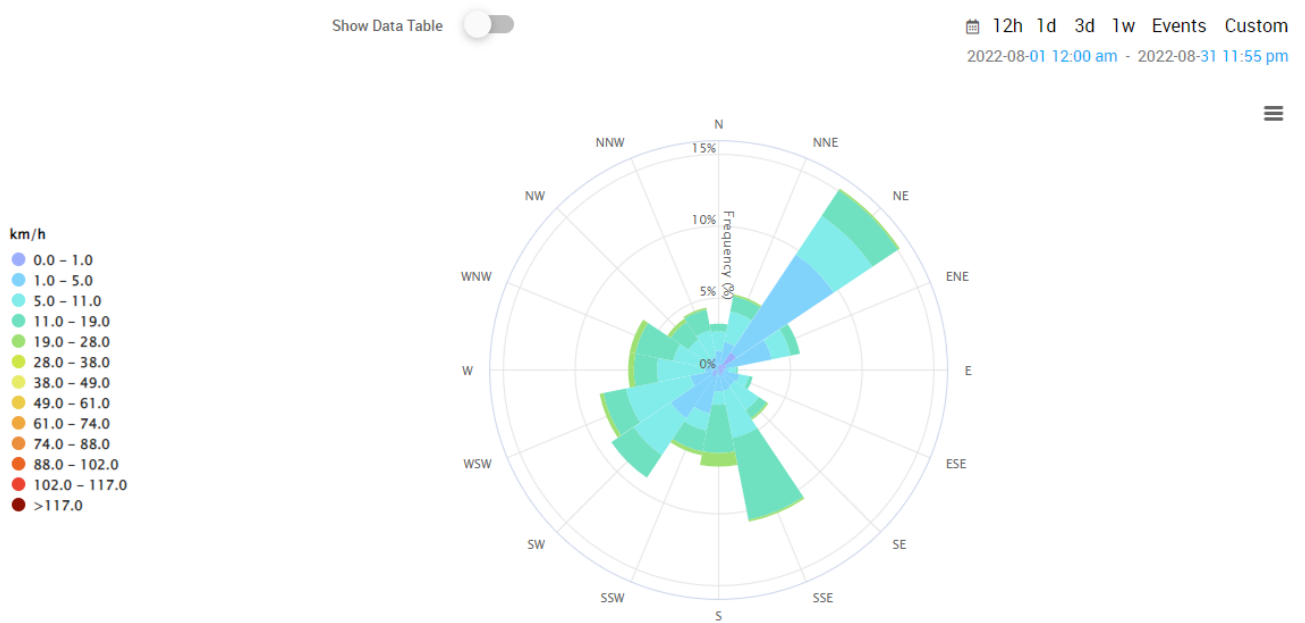


Figure 2: Barron Site weather station wind velocity and percentage for the month of August 2022.

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

Respectfully submitted,

<original signed by>

Garnet Cornell
Environment Superintendent

November 15, 2022

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 MARCH 21, 2022 AT THE SOUTH AIR QUALITY STATION, DUSTFALL EXCEEDANCE OF BENCHMARK 1 VALUE (STANDARD) AT SOUTH AND NORTHWEST AIR QUALITY STATIONS IN MAY 2022, AND DUSTFALL EXCEEDANCE OF BENCHMARK 1 VALUE (STANDARD) AT NORTH AND NORTHWEST AIR QUALITY STATIONS IN JUNE 2022.

Please see attached Notifications of Exceedance regarding:

- A PM2.5 exceedance of the Standard Benchmark 1 Value on March 21, 2022 at the New Gold Rainy River Mine (RRM) South Station of 161.7%,
- A dustfall exceedance of the Standard Benchmark 1 Value averaged over the month of May at South and Northwest stations of 142.70% and 231.86%, respectively,
- And a dustfall exceedance of the Standard Benchmark 1 Value averaged over the month of June at North and Northwest Stations, of 125.10%, and 153.4%, respectively.

On March 21, 2022, the primary wind direction was from the East to Southeast so is expected to have come from public traffic on Tait Road/Highway 600 realignment.

Wind Rose - New Gold - Barron

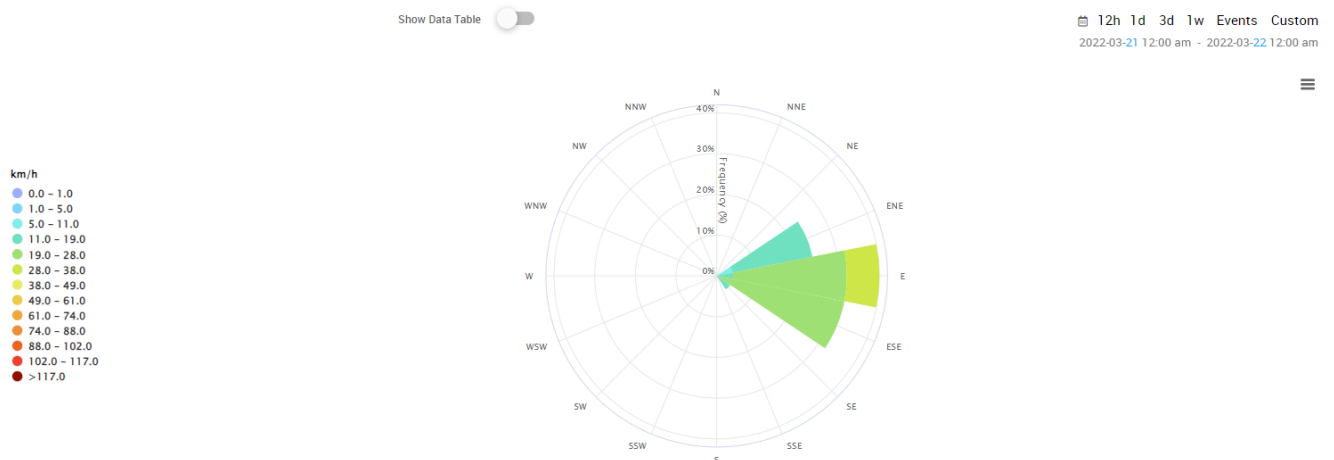


Figure 1 shows Barron Site weather station wind velocity and percentage on March 21, 2022.

The sources of the May 2022 dustfall exceedance at Northwest station is difficult to determine due to the mixed wind speed velocity. The sources could be partially mine site related as well as public traffic related depending on size of plume and wind velocity. The elevated dust related activity happening within the Tailings Management Area at Rainy River Mine during that time was contractor mobilization and commencement of the Stage 4 TMA Dam Raise. Dust suppression water trucks were available and in use onsite during that time period.

Wind Rose - New Gold - Barron

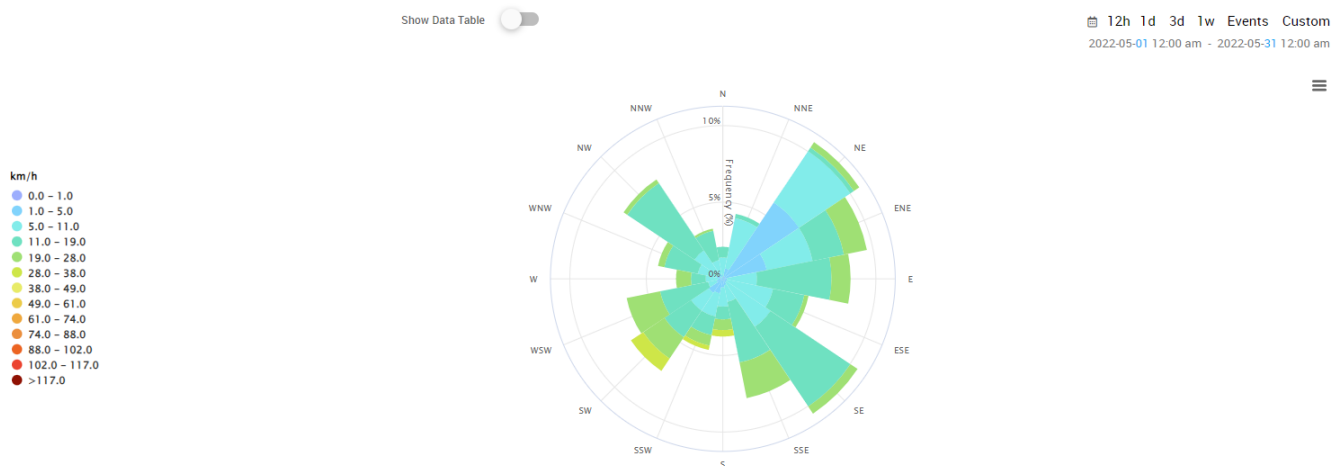


Figure 2 shows Barron Site weather station wind velocity and percentage for the month of May 2022.



Figure 3 shows May 2022 Northwest Air Quality Station dustfall canister before shipment to certified laboratory.

The dustfall exceedance from South Air Quality Station in May 2022 and dustfall exceedances in June 2022 from both North and Northwest Air Quality Stations were due to high organics in the dustfall canister.

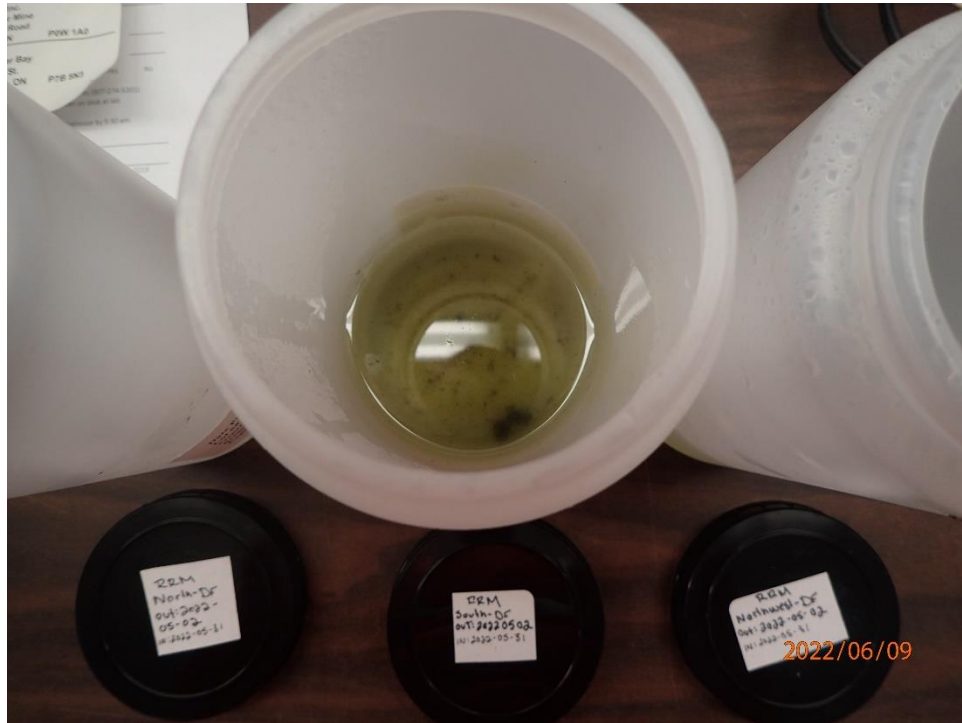


Figure 4 shows May 2022 South Air Quality Station dustfall canister before shipment to certified laboratory.

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

Respectfully submitted,

<original signed by>

Garnet Cornell
Environment Superintendent