



**Photograph NCIS-048: From Sta. 1+120/-92 m (approx.), looking SW. Placement of a 1.5 to 2 m thick (approx.) lift of UM rockfill from El. 148 m to El. 150 m (approx.) with a dozer from Sta. 1+125 m to 1+115 m (-92 m to -47 m). The material is of good quality and is well graded.**



**Photograph NCIS-049: From Sta. 2+870/-28 m (approx.), looking N. Removing of UM rockfill material from the capping with a dozer to level the surface to El. 150 m from Sta. 2+760 m to 2+850 m (o.s. -29 to -17 m).**



**Photograph NCIS-050: From Sta. 1+230/-55 m (approx.), looking S. Compaction of the 1.5 to 2 m lift (approx.) of ultramafic (UM) rockfill at El. 150 m with a 10-tonne smooth-drum compactor with vibration (6 passes) between the haul truck traffic lane and the upstream slope from Sta. 1+220 to 1+130 m (o.s. -91 to -44 m).**

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## QA DAILY REPORT

**DATE** June 28th 2018

1897439-1576-TM-Rev0

**TO** Patrice Gagnon, Pier-Éric McDonald  
Agnico Eagle Mines Ltd, Meadowbank Division

**CC** Frédéric Bolduc, Alexandre Lavallée

**FROM** Marion Habersetzer

**EMAIL** mhabersetzer@golder.com

### QA DAILY REPORT FOR JUNE 27<sup>TH</sup>, 2018 – TSF NORTH CELL CONSTRUCTION - MEADOWBANK (1897439)

#### 1.0 WEATHER

Temperature around 10°C, sunny.

#### 2.0 HEALTH AND SAFETY

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- Coactivity on the dike: be aware of blind spots and safe spots, keep good communication and visual contact with the operators.

#### 3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- AEM indicated that there is a possibility that the North Cell Internal Structure be constructed to El. 153 m only, instead of 154 m. This will be confirmed by after examination of the deposition plans by AEM.

#### 4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the North Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

**Table 1: QA observations for the North Cell Internal Structure**

Activity or Area	Comments
Crest	<ul style="list-style-type: none"> <li>■ Placement of a 1.5 to 2 m thick (approx.) lift of UM rockfill from El. 148 m to El. 150 m (approx.) with a dozer from Sta. 1+115 m to 1+100 m (-107 m to -45 m). The material is of good quality and is well graded.</li> <li>■ Removal of the upstream and downstream berms from Sta. 1+120 to 1+220 m.</li> <li>■ Removing of UM rockfill material from the capping with a dozer to level the surface to El. 152 m from Sta. 2+850 m to 2+980 m (o.s. -38 to -24 m).</li> </ul>
Upstream	<ul style="list-style-type: none"> <li>■ Profiling of the upstream slope (3H:1V) from El. 152 to 154 m with a dozer from Sta. 2+850 m to 2+980 m.</li> <li>■ Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+815 m to 2+860 m.</li> <li>■ Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+640 m to 2+815 m.</li> <li>■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+1+840 m to 1+780 m.</li> </ul>

## 5.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 2 and Table 3 present the samples collected or tested by the QA and QC as well as PNG field results.

**Table 2: Samples taken by the QC**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-394-2018	2018-06-21	2018-06-27	Fine filter	SANA crusher stockpile	Gradation	The material is lacking a little sand-sized particles but is still acceptable.

					Water content	1.60%
FF-408-2018	2018-06-24	2018-06-27	Fine Filter	North Cell Internal Structure, Sta. 2+380/-21 m, El. 150 m	Gradation	Compliant
					Water content	2.10%
FF-409-2018	2018-06-25	2018-06-27	Fine Filter	North Cell Internal Structure, Sta. 2+262/-21 m, El. 152 m	Gradation	Compliant
					Water content	4%

**Table 3: Samples taken by the QA**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-405-2018	2018-06-21	2018-06-27	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.12%

## 6.0 PHOTOGRAPHS



**Photograph NCIS-051: From Sta. 2+630/-34 m (approx.), looking SE. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+640 m to 2+815 m.**



**Photograph NCIS-052: From Sta. 1+120/-87 m (approx.), looking SW. Placement of a 1.5 to 2 m thick (approx.) lift of UM rockfill from El. 148 m to El. 150 m (approx.) with a dozer from Sta. 1+115 m to 1+100 m (-107 m to -45 m). The material is of good quality and is well graded.**



**Photograph NCIS-053: From Sta. 2+840/-37 m (approx.), looking S. Removing of UM rockfill material from the capping with a dozer to level the surface to El. 152 m from Sta. 2+850 m to 2+980 m (o.s. -38 to -24 m).**

## QA DAILY REPORT

**DATE** June 29th 2018

1897439-1576-TM-Rev0

**TO** Patrice Gagnon, Pier-Éric McDonald  
Agnico Eagle Mines Ltd, Meadowbank Division

**CC** Frédéric Bolduc, Alexandre Lavallée

**FROM** Marion Habersetzer

**EMAIL** mhabersetzer@golder.com

### QA DAILY REPORT FOR JUNE 28<sup>TH</sup>, 2018 – TSF NORTH CELL CONSTRUCTION - MEADOWBANK (1897439)

#### 1.0 WEATHER

Temperature around 10°C, sunny.

#### 2.0 HEALTH AND SAFETY

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- Coactivity on the dike: be aware of blind spots and safe spots, keep good communication and visual contact with the operators.

#### 3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- The tensiometer calibration certificate has been received from ZTG.
- The upstream toe of the second lift of UM rockfill must be carefully marked on the first lift by the surveyor, in order to avoid rockfill falling onto the coarse and fine filters during placement. A slight offset is advisable to keep a safety distance, and the toe of the second lift will be completed by the excavator during slope profiling.
- The contractor asked whether PAG rockfill could be used on the upstream side of the North Cell Internal Structure, since UM rockfill is not available in large quantities at the moment. This would not be compatible with the closure plans of the North Cell, therefore it is not an acceptable option.

## 4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the North Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

**Table 1: QA observations for the North Cell Internal Structure**

Activity or Area	Comments
Crest	<ul style="list-style-type: none"> <li>■ Removing of UM rockfill material from the capping with a dozer to level the surface to El. 152 m from Sta. 2+980 m to 3+050 m (o.s. -30 to -20 m).</li> </ul>
Upstream	<ul style="list-style-type: none"> <li>■ Profiling of the upstream slope (3H:1V) from El. 148 to 150 m with an excavator from Sta. 1+340 m to 1+130 m.</li> <li>■ Compaction of the 0.5 m lift of coarse filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 2+560 m to 2+815 m.</li> <li>■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+820 m to 1+595 m.</li> </ul>

## 5.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 2 and

Table 3 present the samples collected or tested by the QA and QC as well as PNG field results.

**Table 2: Samples taken by the QC**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result

**Table 3: Samples taken by the QA**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-407-2018	2018-06-22	2018-06-28	Fine Filter	North Cell Internal Structure, Sta. 2+500/-22 m, El. 152 m	Gradation	Compliant
					Water content	2.82%

## 6.0 PHOTOGRAPHS



**Photograph NCIS-054:** From Sta. 2+580/-31 m (approx.), looking SE. Compaction of the 0.5 m lift (approx.) of coarse filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 2+560 m to 2+815 m.



**Photograph NCIS-055: From Sta. 1+730/-42 m (approx.), looking NE. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+820 m to 1+595 m.**



**Photograph NCIS-056: From Sta. 1+290/-39 m (approx.), looking S. Profiling of the upstream slope (3H:1V) from El. 148 to 150 m with an excavator from Sta. 1+340 m to 1+130 m.**



**Photograph NCIS-057: From Sta. 3+010/-15 m (approx.), looking SW. Removing of UM rockfill material from the capping with a dozer to level the surface to El. 152 m from Sta. 2+980 m to 3+050 m (o.s. -30 to -20 m).**

## QA DAILY REPORT

**DATE** June 30th 2018

1897439-1576-TM-Rev0

**TO** Patrice Gagnon, Pier-Éric McDonald  
Agnico Eagle Mines Ltd, Meadowbank Division

**CC** Frédéric Bolduc, Alexandre Lavallée

**FROM** Marion Habersetzer

**EMAIL** mhabersetzer@golder.com

**QA DAILY REPORT FOR JUNE 29<sup>TH</sup>, 2018 – TSF NORTH CELL CONSTRUCTION - MEADOWBANK (1897439)**

### 1.0 WEATHER

Temperature around 12°C, sunny.

### 2.0 HEALTH AND SAFETY

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- Coactivity on the dike: be aware of blind spots and safe spots, keep good communication and visual contact with the operators.
- A blast is planned at 6:30 at Pit E.

### 3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- There were communication issues with the night shift staff, who does not have a supervisor on the North Cell Internal Structure. As a result, UM rockfill was placed at the wrong location during the last night shift.
- The tailings surface has dried out and become harder underneath the filters. As a result, compaction of the filters is now possible with the compactor on the entire length of the slope using vibration without deforming the slope.

### 4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the North Cell of the TSF. This report must be read in

conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

**Table 1: QA observations for the North Cell Internal Structure**

Activity or Area	Comments
Crest	<ul style="list-style-type: none"> <li>■ Placement of a 1.5 to 2 m thick (approx.) lift of UM rockfill from El. 148 m to El. 150 m (approx.) with a dozer from Sta. 1+120 m to 1+100 m (-96 m to -60 m). The material is of good quality and is well graded.</li> <li>■ Compaction of the 1.5 to 2 m lift (approx.) of ultramafic (UM) rockfill at El. 150 m with a 10-tonne smooth-drum compactor with vibration (6 passes) between the haul truck traffic lane and the downstream slope from Sta. 1+240 m to 1+270 m (o.s. -50 to -45 m).</li> <li>■ Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+340 m to 1+320 m (-19 m to +16 m). The material is of good quality and is well graded.</li> </ul>
Upstream	<ul style="list-style-type: none"> <li>■ Profiling of the upstream slope (3H:1V) from El. 148 to 150 m with an excavator from Sta. 1+410 m to 1+340 m.</li> <li>■ Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 148 m to 152 m with an excavator from Sta. 1+340 m to 1+270 m.</li> <li>■ Compaction of the 0.5 m lift of coarse filter between El. 148 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+340 m to 1+270 m.</li> <li>■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+330 m to 1+260 m and from Sta. 1+595 m to 1+550 m.</li> </ul>

## 5.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 2 and Table 3 present the samples collected or tested by the QA and QC as well as PNG field results.

**Table 2: Samples taken by the QC**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-393-2018	2018-06-21	2018-06-28	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.10%
FF-395-2018	2018-06-21	2018-06-28	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	1.50%
FF-396-2018	2018-06-21	2018-06-28	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.50%
FF-397-2018	2018-06-21	2018-06-29	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	-
FF-398-2018	2018-06-21	2018-06-29	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.30%
FF-410-2018	2018-06-28		Fine Filter	North Cell Internal Structure, Sta. 1+750/-24 m, El. 152 m		
FF-411-2018	2018-06-29		Fine Filter	North Cell Internal Structure, Sta. 1+590/-37 m, El. 152 m		

**Table 3: Samples taken by the QA**

<b>Sample ID</b>	<b>Date Sampled</b>	<b>Date Tested</b>	<b>Fill Material Type</b>	<b>Location (Station/Offset Elevation)</b>	<b>Test</b>	<b>Testing Result</b>
CF-385-2018	2018-06-21	2018-06-29	Coarse filter	SANA crusher stockpile	Gradation	The material contains slightly too much fines particles, but is acceptable provided it is well graded.
					Water content	2.09%

## 6.0 PHOTOGRAPHS



**Photograph NCIS-058:** From Sta. 1+340/-34 m (approx.), looking S. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 148 m to 152 m with an excavator from Sta. 1+340 m to 1+270 m.



**Photograph NCIS-059: From Sta. 1+330/-34 m (approx.), looking S. Placement of a 1.5 to 2 m thick (approx.) lift of UM rockfill from El. 148 m to El. 150 m (approx.) with a dozer from Sta. 1+120 m to 1+100 m (-96 m to -60 m). The material is of good quality and is well graded.**



**Photograph NCIS-060: From Sta. 1+365/-35 m (approx.), looking SW. Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+340 m to 1+320 m (-19 m to +16 m). The material is of good quality and is well graded.**



**Photograph NCIS-061: From Sta. 1+365/-35 m (approx.), looking S. Compaction of the 0.5 m lift of coarse filter between El. 148 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+340 m to 1+270 m.**



**Photograph NCIS-062: From Sta. 1+525/-33 m (approx.), looking N. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+330 m to 1+260 m and from Sta. 1+595 m to 1+550 m.**

## QA DAILY REPORT

**DATE** July 1st 2018

1897439-1576-TM-Rev0

**TO** Patrice Gagnon, Pier-Éric McDonald  
Agnico Eagle Mines Ltd, Meadowbank Division

**CC** Frédéric Bolduc, Alexandre Lavallée

**FROM** Marion Habersetzer

**EMAIL** mhabersetzer@golder.com

### QA DAILY REPORT FOR JUNE 30<sup>TH</sup>, 2018 – TSF NORTH CELL CONSTRUCTION - MEADOWBANK (1897439)

#### 1.0 WEATHER

Temperature around 15°C, sunny.

#### 2.0 HEALTH AND SAFETY

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- Coactivity on the dike: be aware of blind spots and safe spots, keep good communication and visual contact with the operators.

#### 3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- AEM confirmed that the North Cell Internal Structure will be built to the design elevation, between 152 m and 154 m. The option to build it only to El. 153 m is discarded.

#### 4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the North Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

**Table 1: QA observations for the North Cell Internal Structure**

Activity or Area	Comments
Crest	<ul style="list-style-type: none"> <li>■ Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+320 m to 1+235 m (-65 m to -45 m). The material is of good quality and is well graded.</li> <li>■ Compaction of the 1.5 to 2 m lift (approx.) of ultramafic (UM) rockfill at El. 150 m with a 10-tonne smooth-drum compactor with vibration (6 passes) between the haul truck traffic lane and the downstream slope from Sta. 1+170 to 1+100 m (o.s. -47 to -41 m).</li> </ul>
Upstream	<ul style="list-style-type: none"> <li>■ Profiling of the upstream slope (3H:1V) from El. 148 to 150 m with an excavator from Sta. 1+340 m to 1+100 m.</li> <li>■ Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 148 m to 150 m with an excavator from Sta. 1+270 m to 1+100 m.</li> <li>■ Compaction of the 0.5 m lift of coarse filter between El. 148 and 150 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+270 m to 1+100 m.</li> <li>■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 148 m to 150 m with an excavator from Sta. 1+260 m to 1+180 m.</li> <li>■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+595 m to 1+550 m.</li> </ul>

## 5.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 2 and Table 3 present the samples collected or tested by the QA and QC as well as PNG field results.

**Table 2: Samples taken by the QC**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-410-2018	2018-06-28	2018-06-30	Fine Filter	North Cell Internal Structure, Sta.	Gradation	Compliant

				1+750/-24 m, El. 152 m	Water content	2.50%
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Table 3: Samples taken by the QA

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result

## 6.0 PHOTOGRAPHS



Photograph NCIS-063: From Sta. 1+200/-65 m (approx.), looking SW. Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 148 m to 150 m with an excavator from Sta. 1+270 m to 1+100 m.



**Photograph NCIS-064: From Sta. 1+200/-65 m (approx.), looking W. Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+320 m to 1+235 m (-65 m to -45 m). The material is of good quality and is well graded.**



**Photograph NCIS-065: From Sta. 1+140/-96 m (approx.), looking NE. Compaction of the 0.5 m lift of coarse filter between El. 148 and 150 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+270 m to 1+100 m.**



**Photograph NCIS-066: From Sta. 1+400/-34 m (approx.), looking N. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+595 m to 1+550 m.**

## QA DAILY REPORT

**DATE** July 2nd 2018

1897439-1576-TM-Rev0

**TO** Patrice Gagnon, Pier-Éric McDonald  
Agnico Eagle Mines Ltd, Meadowbank Division

**CC** Frédéric Bolduc, Alexandre Lavallée

**FROM** Marion Habersetzer

**EMAIL** mhabersetzer@golder.com

### QA DAILY REPORT FOR JULY 1ST, 2018 – TSF NORTH CELL CONSTRUCTION - MEADOWBANK (1897439)

#### 1.0 WEATHER

Temperature around 15°C, sunny.

#### 2.0 HEALTH AND SAFETY

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- Coactivity on the dike: be aware of blind spots and safe spots, keep good communication and visual contact with the operators.
- It was reiterated that no one should leave their work station without notifying their supervisor, for safety reasons.

#### 3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- Most of the UM rockfill surface between the haul truck traffic lane and the upstream edge of the crest has been compacted with the 10 t smooth-drum compactor. It was agreed that since 50 t loaded haul trucks continuously traffic on this surface for filter placement operations, the remainder of the surface will not require additional compaction with the smooth-drum compactor. It is estimated that haul truck traffic achieves a satisfactory compaction of the UM rockfill.

#### 4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the North Cell of the TSF. This report must be read in

conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

**Table 1: QA observations for the North Cell Internal Structure**

Activity or Area	Comments
Crest	<ul style="list-style-type: none"> <li>■ Removing of UM rockfill material from the capping with a dozer to level the surface to El. 152 m from Sta. 3+050 m to 3+150 m (o.s. -38 to -17 m).</li> <li>■ Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+235 m to 1+160 m (-60 m to -44 m). The material is of good quality and is well graded.</li> </ul>
Upstream	<ul style="list-style-type: none"> <li>■ Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+860 m to 2+975 m.</li> <li>■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 148 m to 150 m with an excavator from Sta. 1+180 m to 1+100 m.</li> <li>■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+560 m to 2+630 m.</li> <li>■ Compaction of the 0.5 m lift of fine filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+335 m to 1+100 m.</li> </ul>

## 5.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 2 and Table 3 present the samples collected or tested by the QA and QC as well as PNG field results.

**Table 2: Samples taken by the QC**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-400-2018	2018-06-21	2018-07-01	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.80%
FF-411-2018	2018-06-29	2018-07-01	Fine Filter	North Cell Internal Structure, Sta. 1+590/-37 m, El. 152 m	Gradation	Compliant
					Water content	2.30%

**Table 3: Samples taken by the QA**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-412-2018	2018-07-01		Fine Filter	North Cell Internal Structure, Sta. 1+120/-102 m, El. 150 m		

## 6.0 PHOTOGRAPHS



**Photograph NCIS-067: From Sta. 2+880/-26 m (approx.), looking SW. Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+860 m to 2+975 m.**



**Photograph NCIS-068:** From Sta. 1+150/-62 m (approx.), looking S. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 148 m to 150 m with an excavator from Sta. 1+180 m to 1+100 m.



**Photograph NCIS-069: From Sta. 1+180/-56 m (approx.), looking NW. Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+235 m to 1+160 m (-60 m to -44 m). The material is of good quality and is well graded.**



**Photograph NCIS-070: From Sta. 1+160/-89 m (approx.), looking S. Compaction of the 0.5 m lift of fine filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor with vibration (4 passes) in the upstream slope from Sta. 1+335 m to 1+100 m.**

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## QA DAILY REPORT

**DATE** July 3rd 2018

1897439-1576-TM-Rev0

**TO** Patrice Gagnon, Pier-Éric McDonald  
Agnico Eagle Mines Ltd, Meadowbank Division

**CC** Frédéric Bolduc, Alexandre Lavallée

**FROM** Samuel Barbeau

**EMAIL** sbarbeau@golder.com

### QA DAILY REPORT FOR JULY 2<sup>ND</sup>, 2018 – TSF NORTH CELL CONSTRUCTION - MEADOWBANK (1897439)

#### 1.0 WEATHER

Temperature around 15°C, sunny.

#### 2.0 HEALTH AND SAFETY

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- Coactivity on the dike: be aware of blind spots and safe spots, keep good communication and visual contact with the operators.

#### 3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- The coarse and fine filters stockpiles used at the moment will soon be finished. Stockpiles from last year (crushed UM material) will then be used. QA and QC personnel will sample the other stockpiles for gradations.
- Due to the level of the South Cell supernatant pond, it is impossible to access the upstream side of SD3 from the ground. The erosion protection offer too narrow a platform for the articulated trucks to access the work area. The rockfill layer will be widened before construction works on SD3 can resume. The access to SD3 will also be reworked.

#### 4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the North Cell of the TSF. This report must be read in

conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

**Table 1: QA observations for the North Cell Internal Structure**

Activity or Area	Comments
Crest	<ul style="list-style-type: none"> <li>■ Placement of a 2 m thick (approx.) lift of UM rockfill from El. 150 m to El. 152 m (approx.) with a dozer from Sta. 1+160 m to 1+130 m (-92 m to -61 m). The material is of good quality and is well graded.</li> </ul>
Upstream	<ul style="list-style-type: none"> <li>■ Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+975 m to 3+070 m.</li> <li>■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+550 m to 1+320 m and 1+630 m to 1+610 m.</li> </ul>

## 5.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 2 and Table 3 present the samples collected or tested by the QA and QC as well as PNG field results.

**Table 2: Samples taken by the QC**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-399-2018	2018-06-21	2018-07-02	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	2.90%
FF-401-2018	2018-06-21	2018-07-02	Fine filter	SANA crusher stockpile	Gradation	Compliant
					Water content	4.30%
FF-413-20108	2018-07-02		Fine Filter	North Cell Internal Structure, Sta. 1+100/-102 m, El. 150 m		
FF-414-2018	2018-07-02		Fine Filter	SANA Crusher Second Stockpile		
CF-387-2018	2018-07-02		Coarse Filter	SANA Crusher Second Stockpile		

**Table 3: Samples taken by the QA**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-415-2018	2018-07-02		Fine Filter	SANA Crusher Second Stockpile		
CF-388-2018	2018-07-02		Coarse Filter	SANA Crusher Second Stockpile		

## 6.0 PHOTOGRAPHS



**Photograph NCIS-071: From Sta. 2+670/-28 m (approx.), looking SE. Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+550 m to 1+320 m and 1+630 m to 1+610 m.**



**Photograph NCIS-072: From Sta. 2+790/-38 m (approx.), looking W. Profiling of the upstream slope (3H:1V) from El. 150 to 152 m with an excavator from Sta. 2+975 m to 3+070 m.**

## QA DAILY REPORT

**DATE** July 4th 2018

1897439-1576-TM-Rev0

**TO** Patrice Gagnon, Pier-Éric McDonald  
Agnico Eagle Mines Ltd, Meadowbank Division

**CC** Frédéric Bolduc, Alexandre Lavallée

**FROM** Samuel Barbeau

**EMAIL** sbarbeau@golder.com

### QA DAILY REPORT FOR JULY 3<sup>RD</sup>, 2018 – TSF NORTH CELL CONSTRUCTION - MEADOWBANK (1897439)

#### 1.0 WEATHER

Temperature around 14°C, cloudy then sunny.

#### 2.0 HEALTH AND SAFETY

- Dust is still an issue on the construction field; be vigilant by staying out of the dust cloud near construction activities and road circulation.
- Coactivity on the dike: be aware of blind spots and safe spots, keep good communication and visual contact with the operators.
- Keep a safe distance from the compactor as it is towed in the slope by an excavator, in case of a failure of the steel cable.
- A blast is planned at 12:45 at Pit Phaser.

#### 3.0 DISCUSSION AND DAILY CONSTRUCTION MEETING

During the daily construction meeting and during the day the following discussions were held:

- Compaction of the filters is done with a smooth-drum compactor in the upstream slope, attached to an excavator. When the foundation is too soft, vibration is not used for the first pass down the slope in order to stabilize the material and limit deformation of the lift. Due to the soft foundation, the compactor is unable to reach the bottom of the slope, and some material is pushed down the slope. This results in an irregular surface, it is however acceptable. The lower portion of the slope will be flattened with the bucket of the excavator once compaction is complete.

## 4.0 DESCRIPTION OF CONSTRUCTION WORK PERFORMED AND QA OBSERVATIONS

The QA activities by Golder are based on periodic inspections performed by the QA Engineer in order to monitor the construction activities and progress of the structure of the North Cell of the TSF. This report must be read in conjunction with the QC Report. The following tables summarize the progress and observations made for each structure.

**Table 1: QA observations for the North Cell Internal Structure**

Activity or Area	Comments
Upstream	<ul style="list-style-type: none"> <li>■ Placement of a 0.5 m thick lift of fine filter over the coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 1+320 m to 1+300 m.</li> <li>■ Placement of a 0.5 m thick lift of coarse filter in the upstream slope from El. 150 m to 152 m with an excavator from Sta. 2+815 m to 2+980 m.</li> <li>■ Compaction of the 0.5 m lift (approx.) of fine filter between El. 150 and 152 m with a 10-tonne smooth-drum compactor (4 passes) in the upstream slope from Sta. 2+810 m to 2+095 m. Vibration is used except for the first pass down the slope in order to stabilize the material and limit deformation of the lift.</li> </ul>

## 5.0 SAMPLING, LABORATORY AND FIELD TESTING

Table 2 and Table 3 present the samples collected or tested by the QA and QC as well as PNG field results.

**Table 2: Samples taken by the QC**

Sample ID	Date Sampled	Date Tested	Fill Material Type	Location (Station/Offset Elevation)	Test	Testing Result
FF-402-2018	2018-06-21	2018-07-03	Fine Filter	SANA Crusher Stockpile	Gradation	Compliant
					Water content	3.80%

**Table 3: Samples taken by the QA**

<b>Sample ID</b>	<b>Date Sampled</b>	<b>Date Tested</b>	<b>Fill Material Type</b>	<b>Location (Station/Offset Elevation)</b>	<b>Test</b>	<b>Testing Result</b>
FF-412-2018	2018-07-01	2018-07-03	Fine Filter	North Cell Internal Structure, Sta. 1+120/-102 m, El. 150 m	Gradation	Compliant
					Water Content	2.58 %
CF-388-2018	2018-07-02	2018-07-03	Coarse Filter	SANA Crusher Second Stockpile	Gradation	The material contains slightly too much sand particles, but is acceptable provided it is well graded.
					Water Content	1.13 %