

## **Appendix B5**

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### **2017 TSF As-built Report**

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**SOUTH CELL INTERNAL STRUCTURE AS-BUILT REPORT**

**AGNICO-EAGLE MINES LIMITED  
MEADOWBANK GOLD PROJECT**

**DECEMBER 31, 2017**

## **EXECUTIVE SUMMARY**

The construction of the South Cell Internal Structure at Meadowbank was conducted from October 7<sup>th</sup> 2017 to November 6<sup>th</sup> 2017. The internal structure is located in the northwest corner of the South Cell of the Tailings Storage Facility along the downstream toe of Stormwater Dike and in front of the reclaim pump area.

The internal structure is designed and constructed to block the subaqueous slurry beach from reaching the reclaim pump suction as this would cause water quality issues at the mill. This structure will also optimize the tailings deposition in the South Cell. The built internal structure is 340m long, 25.5 m wide, and built to an elevation of 137.25m.

Work carried out during construction of the internal structure included access road construction, placement of a lift of rockfill 0.5 m meter above the South Cell water level, and the excavation of two trenches on the crest of the internal structure having a depth of 2 m deep each. This as-built report presents the design and the construction procedure of the internal structure.

## DOCUMENT CONTROL

Document Version	Date	Revised Section	Revision
Draft	2017-12-29	All	
Final	2017-12-31	All	

# SOUTH CELL INTERNAL STRUCTURE AS-BUILT REPORT

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# **SOUTH CELL INTERNAL STRUCTURE AS-BUILT REPORT**

## **SECTION 1.0 - INTRODUCTION**

The South Cell at Meadowbank is located in the north portion of the main mine site, and is one of the two cells within the Meadowbank Tailings Storage Facility (TSF). The South Cell TSF is contained within 5 perimeter tailings dikes: Stormwater Dike, Central Dike, Saddle Dam 5, Saddle Dam 4, and Saddle Dam 3. In 2017, tailings deposition was ongoing in the South Cell from the south at Saddle Dam 4 and from the east at Central Dike. Water in the South Cell is reclaimed and sent to the mill through the reclaim pump located at the northwest corner of the South Cell. Figure 1 presents the Meadowbank Mine site and Figure 2 presents the general arrangement of the South Cell TSF and the location of the reclaim pump area.

In August 2017, the decision was taken to transfer water out of the South Cell to lower its water level as a response to the increase of the alert level of Central Dike to orange. The Meadowbank Engineering team identified that this transfer of water would create a risk of tailings slurry channelling over the frozen tailings beach in the winter of 2018. This would result in the subaqueous slurry beach getting very close to the reclaim suction, potentially causing reclaim water quality issues at the mill. To mitigate this risk, it was proposed to build a permeable rockfill internal structure in front of the reclaim area to block migration of tailings toward the reclaim pump. Building the internal structure would also help optimize tailings deposition and increase the capacity of the TSF. The TSF Dike Designer (Golder) approved the concept and provided recommendations. Construction of the internal structure in the South Cell was conducted between October 7<sup>th</sup> 2017 and November 6<sup>th</sup> 2017.

This as-built report presents the work construction procedures for the South Cell Internal Structure. This document presents the design and construction package, a description of the construction activities and the inspection procedure during the construction activities.

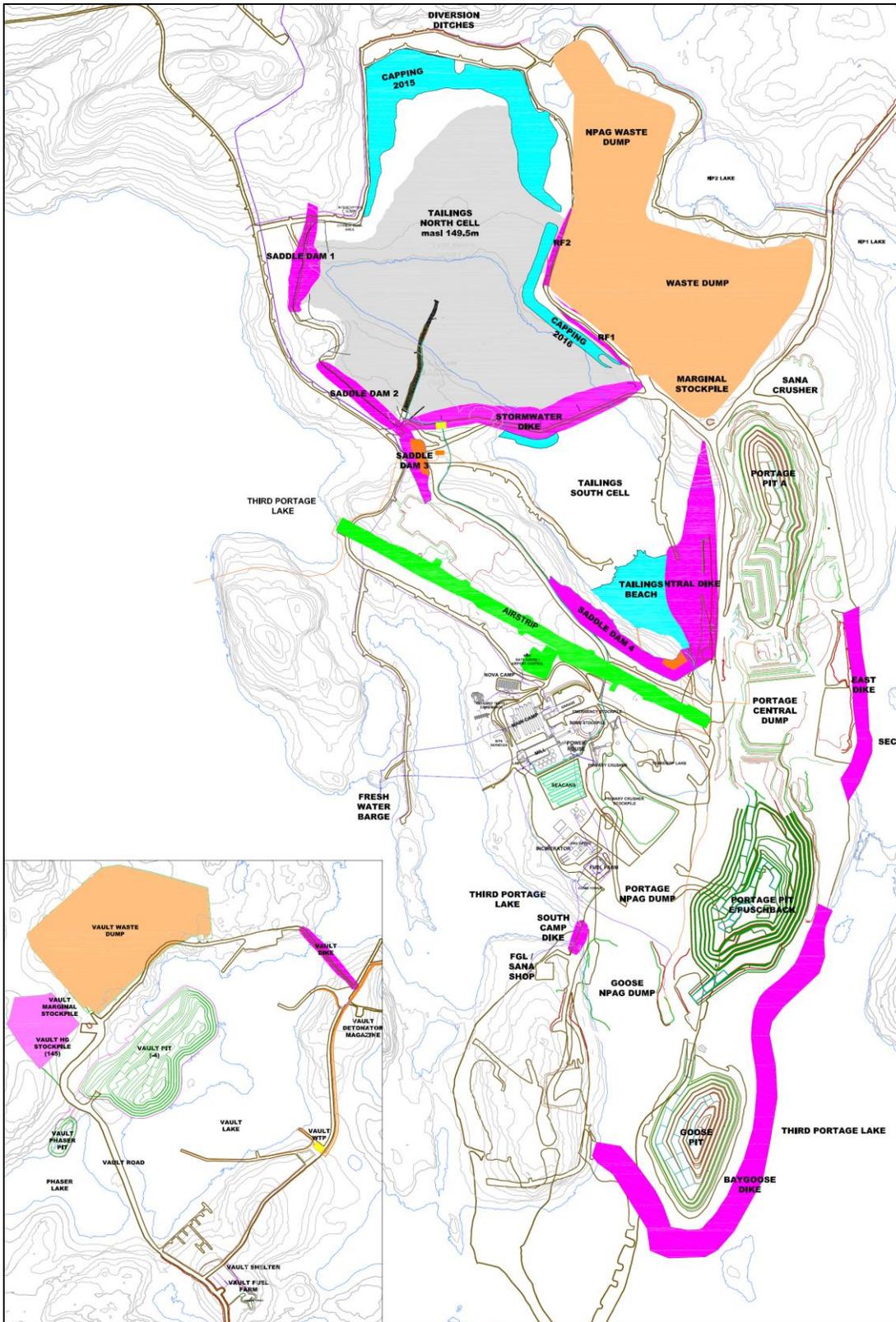
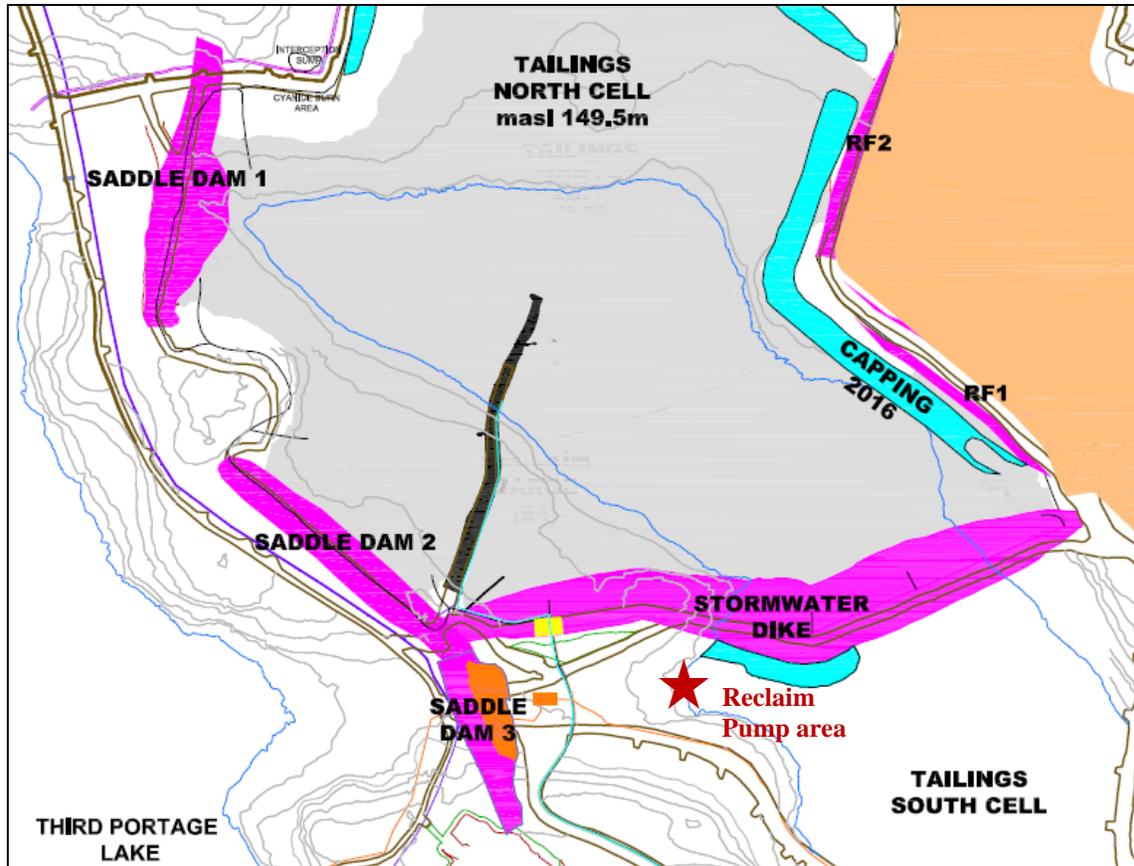


Figure 1: General arrangement of the Meadowbank mine site



**Figure 2:** General arrangement of the South Cell TSF and the location of the reclaim pump area

## SECTION 2.0 - DESIGN AND TECHNICAL SPECIFICATIONS

The construction of the internal structure is considered as a preventive measure. The concept of the internal structure was prepared by AEM and was presented to the Meadowbank Dike Review Board as well as the TSF designer (Golder Associates) and they both supported the idea. The memorandum describing the concept of the internal structure is included in Appendix B.

Design and Technical Specifications were developed in a construction package by the Meadowbank Engineering team prior to the start of the internal structure construction. This construction package is included in Appendix C. Plan and section views of the internal structure design are shown in this appendix.

The Internal Structure design has an elbow shape, the first 175m was designed above the 2016 Stormwater Dike Buttress foundation for both access convenience purpose and to minimize material to haul. The remaining 165m was designed to merge to the original South Cell shores on the other end of the south end of the South cell. The structure was designed to be built to

elevation 137.25masl in order to be 0.5m above water at the expected end of the construction period. A width of 25.5m was judged most effective to avoid building turnarounds for trucks. The structure was to be constructed in one phase (no lifts) and safety berms were identified as being required during construction. A maximum water depth of 10m was expected to be encountered. The internal structure was to be built with rockfill material. Two trenches with a depth of 2 meters were added to the design on an East–West axis on the North-South portion of the structure to promote water flow toward the reclaim pump area.

## 2.1 FILL MATERIAL AND PLACEMENT SPECIFICATIONS

The material to be used for the construction of the internal structure was potentially acid generating (PAG) rockfill and non-potentially acid generating rockfill (NPAG). Ultramafic rockfill was allowed to be used and no oversize limit was placed on boulders. The rockfill was to be hauled to the internal structure construction area by 100T and 150T haul trucks. After the rockfill was dumped out of the haul trucks onto the surface of the internal structure a CAT D9 dozer would push it into place. Compaction would be achieved through haul truck and dozer circulation.

## **SECTION 3.0 - CONSTRUCTION ACTIVITIES AND DESCRIPTION OF THE WORK**

The construction work for the internal structure was done by the Mine Operations Department with guidance from the Meadowbank Engineering Department. The construction surveillance was done by AEM representatives and the Geotechnical team. Survey of the work was completed by AEM. The construction of the South Cell internal structure was conducted from October 7<sup>th</sup> 2017 to November 6<sup>th</sup> 2017 and consisted of the following activities:

- Access road construction
- Placement of rockfill
- Excavation of two trenches

Selected photographs of the work progress taken throughout the construction program, showing various aspects of the construction work are included in Appendix A. As-built drawings are available in Appendix D. The job hazard assessment (JHA) developed for the construction activity is included in Appendix F.

## 3.1 ACCESS ROAD CONSTRUCTION

The first step prior to all works in the internal structure construction area was to build an access road. The access to the work area was similar than the one use in 2016 for the Stormwater Dike Buttress. The access passed in front of SD3 and along the downstream

toe of Stormwater. The existing roads near Saddle Dam 3 had to be widened to provide enough room for 100T and 150T haul trucks to circulate. Pickets were placed in the tundra to indicate where the access road needed to go.

### 3.2 PLACEMENT OF THE LIFT OF ROCKFILL

Construction of the internal structure started on October 7<sup>th</sup> 2017 with the placement of a single lift of rockfill to a constant elevation in the South Cell. The internal structure was built using 100T and 150T haul trucks operated by the Mine Operations Department. PAG and NPAG rockfill was hauled by haul trucks to the internal structure construction area using the access road described in Section 4.1. The rockfill was sourced directly from Pit A and Pit E. The rockfill was dumped out of the haul trucks onto the surface of the internal structure and a CAT-D9 dozer pushed the rockfill in the South Cell to advance the internal structure. Compaction of the rockfill surface was achieved through haul truck and dozer circulation. Construction of the internal structure within the South Cell was only conducted during day light. The rockfill placement was completed to a final elevation of 137.25m on November 4<sup>th</sup> 2017. The built internal structure is 340m long and 25.5m wide.

The total volume of rockfill used to construct the internal structure was 81,851 tonnes or 40,926 m<sup>3</sup>. Refer to Table 1 for more details.

### 3.3 EXCAVATION OF TWO TRENCHES

The excavation of the two trenches having a depth of 2 m on the internal structure was completed on November 6<sup>th</sup> 2017 using an excavator. This completed the construction of the South Cell internal structure.

**Table 1** Rockfill placement by Date and Material

Destination	Date	Waste			
		Npag	Pag	Total	
SOUTH-CELL-INT-STRUC	07-Oct-2017	261		261	
	08-Oct-2017	261	4,437	4,698	
	09-Oct-2017	174	2,784	2,958	
	10-Oct-2017	1,305	2,001	3,306	
	11-Oct-2017	6,177		6,177	
	12-Oct-2017	6,177		6,177	
	13-Oct-2017		1,392	1,392	
	14-Oct-2017		2,088	2,088	
	15-Oct-2017		6,177	6,177	
	16-Oct-2017	2,001		2,001	
	17-Oct-2017	2,262	522	2,784	
	20-Oct-2017	2,958		2,958	
	21-Oct-2017	1,914		1,914	
	22-Oct-2017	6,054		6,054	
	23-Oct-2017	903		903	
	24-Oct-2017	7,904		7,904	
	25-Oct-2017	6,392		6,392	
	27-Oct-2017	261	261	522	
	28-Oct-2017	2,523		2,523	
	29-Oct-2017		2,436	2,436	
	30-Oct-2017	522	261	783	
	31-Oct-2017	348	870	1,218	
	01-Nov-2017	1,044		1,044	
	02-Nov-2017	87	1,131	1,218	
	03-Nov-2017	4,803		4,803	
	04-Nov-2017	3,160		3,160	
		Sub Total	57,491	24,360	81,851
	<b>Total</b>		57,491	24,360	81,851

**SECTION 4.0 - QC MONITORING DURING OPERATIONS**

AEM representatives routinely conducted visual observation of work procedures during the construction of the South Cell internal structure. Review of the work procedure was done on a daily basis and corrections were made if needed. Daily surveys were conducted by AEM representatives for daily progress and to ensure that limits and grades were followed as per the construction documentation specification. Photographs of the work progress were taken throughout the construction of the internal structure. Daily spotter inspection forms for each work shift were issued and filed by AEM representatives as well (see Appendix E). A visual monitoring program consisting of frequent field visits by the Geotechnical team was also put into place to verify the integrity of the internal structure. No instabilities or adverse conditions were encountered during the construction of the internal structure.

**As-built report by:**

*Rebecca Cousineau, P.Eng  
Water and Tailings Engineers, Meadowbank Engineering*

*Pier-Eric McDonald,  
Water and Tailings Specialist, Meadowbank Engineering*

**Reviewed by:**

*Frédéric L. Bolduc, P.Eng  
Geotechnical Coordinator, Meadowbank Engineering*

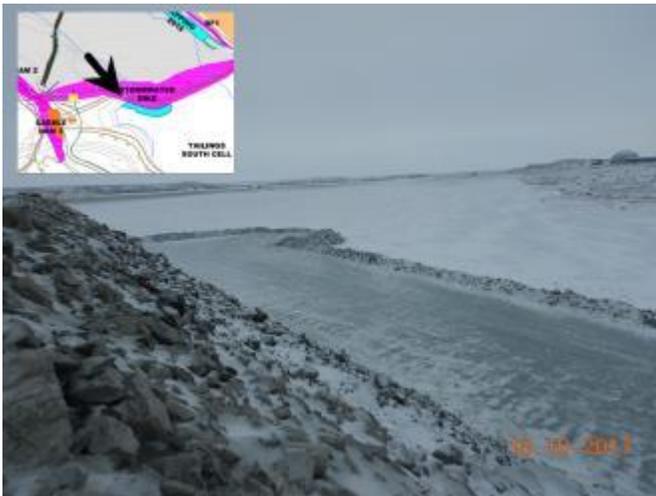
APPENDIX A  
Selected Internal Structure Construction Photos



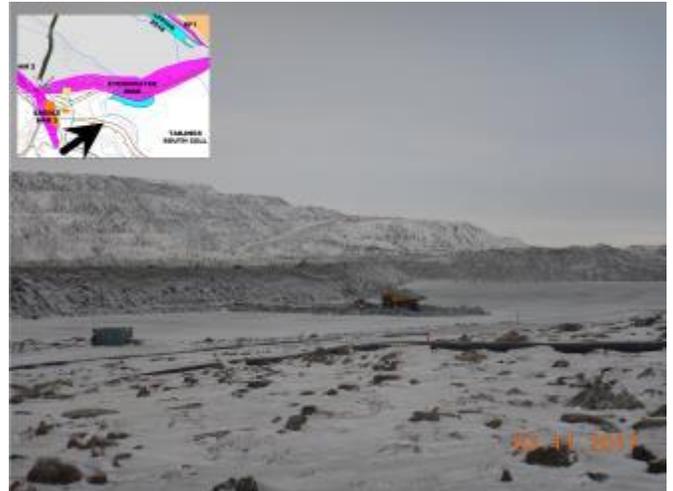
**Photo 1: Placement of rockfill over 2016 Stormwater Dike buttress (October 9, 2017).**



**Photo 4: View from the end of the structure on the platform (November 2, 2017).**



**Photo 2: Continued (October 18, 2017).**



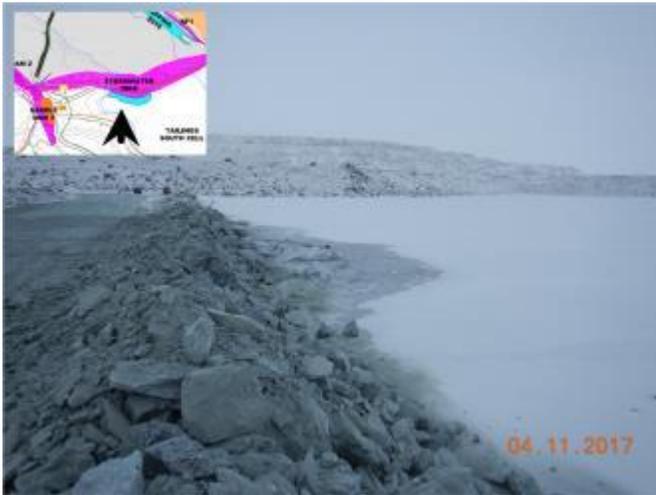
**Photo 5: View of the dumping process from Saddle road (November 3, 2017).**



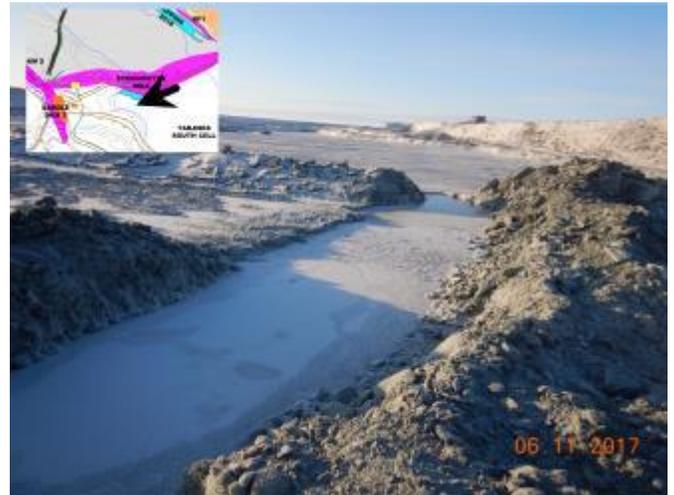
**Photo 3: Access area of internal structures over Stormwater Dike 2016 buttress (October 18, 2017).**



**Photo 6: View on the platform towards the end of the structure (November 4, 2017).**



**Photo 7: Close up view of the ice sheet collapsing as material placement occurs (November 4, 2017).**



**Photo 10: View of the completed trenching (November 6, 2017).**



**Photo 8: Backhoe working on the first trench (November 5, 2017).**



**Photo 11: General view of the completed internal structure (November 10, 2017).**



**Photo 9: Close up view of a backhoe working on the first trench (November 5, 2017).**

APPENDIX B  
Memorandum – SC internal structures



## TECHNICAL MEMORANDUM

To: Jamie Quesnel, Yves Boulianne, Luc Chouinard, Meadowbank Engineering

From: Meadowbank Engineering

Date: Thursday, September 21, 2017

**Subject: South Cell Internal Structure**

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This memorandum presents the proposed concept for the construction of the South Cell Internal Structure and provides the details required to seek stakeholder approval for the project.

### **Project Overview**

During the August 2017 deposition plan update, the Meadowbank Engineering team identified a risk of slurry channelling over the frozen tailings beach during the winter of 2018. This could result in the sub-aqueous slurry beach reaching the reclaim suction, causing reclaim water quality issues at the mill. This would cause an increase in freshwater usage and overall pond volume putting in jeopardy the water freeboard limit. To mitigate this risk, the construction of a permeable rockfill internal structure in front of the reclaim area has been evaluated to block migration of the tailings toward the reclaim pump (Figure 1).

The South Cell Internal Structure would be built to El. 138m (the current water level in the South Cell is at El. 136.8m), have a max structure height of 8m (the bottom of the pond at the deepest spot along the structure is elevation 130m), and have a crest width of 30m. 2m deep trenches would then be excavated on the crest of the structure to allow water to flow to the reclaim area. This structure would secure the South Cell water management strategy to reduce the overall pond volume in response to Central Dike seepage and the tailings cell closure requirements. The TSF designer (Golder) agreed with the conceptual engineering plan of this structure and provided recommendations on the construction procedure.

Prior to building the internal structure the current reclaim pump suction will be moved to a new location within the area that will be separated from the rest of the South Cell by the internal structure (Figure 1). No constraints are foreseen for the tailings deposition and reclaim water pumping during and after the construction of this structure.

### **Similar Projects**

Two similar projects have been done in the past at Meadowbank and have shown that these types of structures are reliable and feasible. Those projects are the Stormwater Dike Buttress (constructed in fall 2016) and the North Cell Internal Structures (constructed in early 2014). Experience from these two projects will be used to create the JHAs, construction procedures and construction monitoring program.

Specifically, the North Cell Internal Structures, built during winter conditions, had a similar design basis to secure reclaim pumping operations and optimize tailings storage in the southern portion of the North Cell TSF.

## **Material Quantities**

The South Cell Internal Structure will require 62,000 m<sup>3</sup> (125,000 T) of NPAG rockfill. This quantity has 20% contingency added based on experience from the Stormwater Dike Buttress project.

## **Timing of Construction**

It is estimated that 25 days would be required for the construction of this structure. The latest production plan produced for the 2018 Budget shows an opportunity in October to build the structure as 82,000 m<sup>3</sup> of NPAG (soapstone) is planned to be sent to the 135 dump (similar haul cycle). Construction at Saddle Dam 3 will be complete in September and would not interfere with this project.

Experience from the North Cell Internal Structure project has shown that this type of structure would require fewer resources if built before ice formation in the area. Otherwise ice has to be removed using a backhoe from the front of the placement area as construction progresses, increasing construction time. In addition, delaying the construction will lead to an increase in material requirements due to a rise of the reclaim pond level.

## **Stability Studies**

The South Cell Internal Structure was discussed with Golder to determine if any stability studies would need to be done prior to construction. Golder and AEM agreed that the stability study done previously for the Stormwater Dike Buttress is adequate for this project.

## **Construction Procedure**

The construction procedure for the internal structure is based on what was done for the Stormwater Dike Buttress in 2016. Construction of the structure beyond the water limit would only proceed during day shift. The structure would be built with the guidance of survey (grade shots and width checks). Only 100T haul trucks would be used with experienced operators. A spotter would be required to monitor the foundation during construction and all work will stop if any movement is discovered during construction.

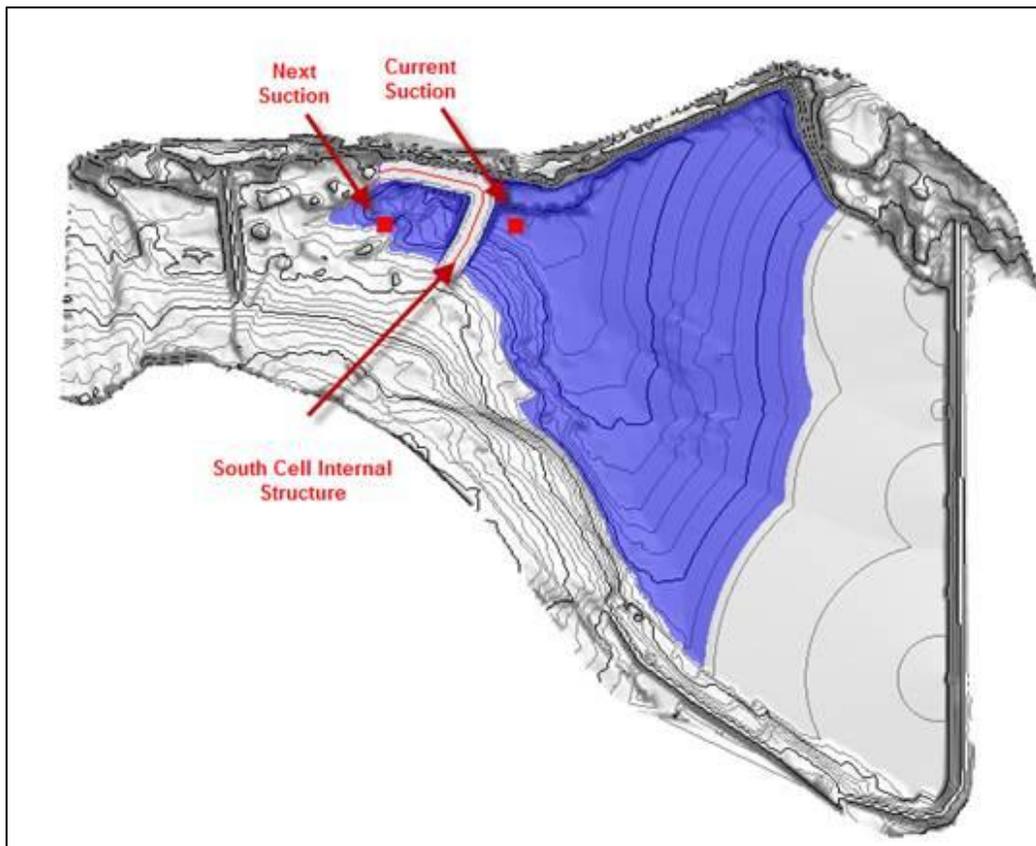
The access for the haul trucks has been considered and is proposed to be through the Stormwater Dike Buttress (Figure 2). This access will require minimal corrective work in the form of material placement above the South Cell water level (included in the volume and construction time estimate). Widening of the Saddle Road as it turns toward Saddle Dam 3 will also be required for 100 T access.

For safety reason, the first rockfill lift will be built 0.5m above water. After the placement of the first lift, a second rockfill lift will be placed to El. 138m. The dumping platform will be kept as horizontal (flat) as possible to ease dumping. Haul trucks will dump their loads one haul truck length away from the end of the road. The dozer will back itself away from the end of the structure and be located in front of the haul truck while dumping occurs. This is to reduce the amount of weight at the end of the structure to promote road stability.

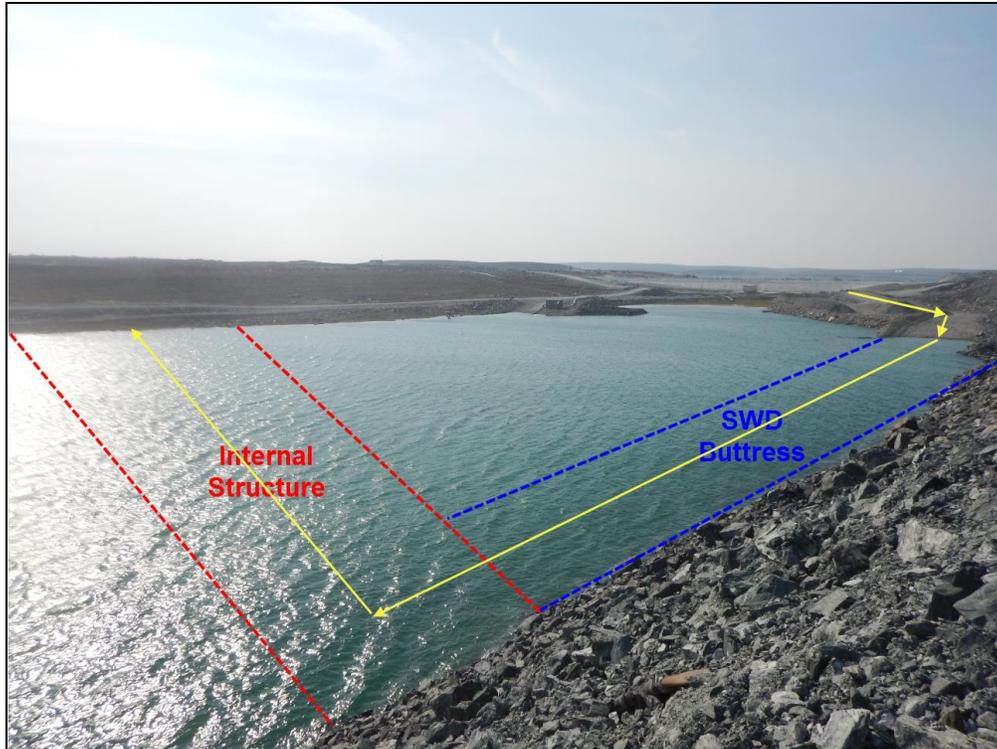
Once the rockfill placement is finished, a shovel will excavate two 2.5 m deep trench in the structures. Excavation material will be cast out of the road to allow access of the trench in order to perform maintenance of the structure if required. The width of the trench will be around 5 m at the crest with slope respecting the 1:1 ratio. Once the trench will be completed, a bumper will be built over the road to block access to any equipment and vehicle over the South Cell Internal Structure.

### Next Steps

- Receive approval for the construction of the South Cell Internal Structure;
- Complete construction package with detailed design drawings, material placement guidelines, and crest coordinates;
- Present construction package to the Mine and Engineering stakeholders;
- Coordinate with planner for inclusion and mine planning deliverables (3MR & Weekly)
- Create a JHA for the construction of the structure



**Figure 1:** The proposed South Cell Internal Structure with the current and next reclaim pump suction locations.



**Figure 2:** The construction area access, as seen from Stormwater Dike.



**Figure 3:** Road widening will be required on the Saddle Road as it turns toward Saddle Dam 3 since currently the road width is only enough for light vehicles. A new road could also be constructed to reduce the length of the hauling route, as seen on the right-hand side of the photo.

APPENDIX C  
Construction Package



**AGNICO EAGLE**



# **SOUTH CELL INTERNAL STRUCTURES**

**Construction package**

October 2017



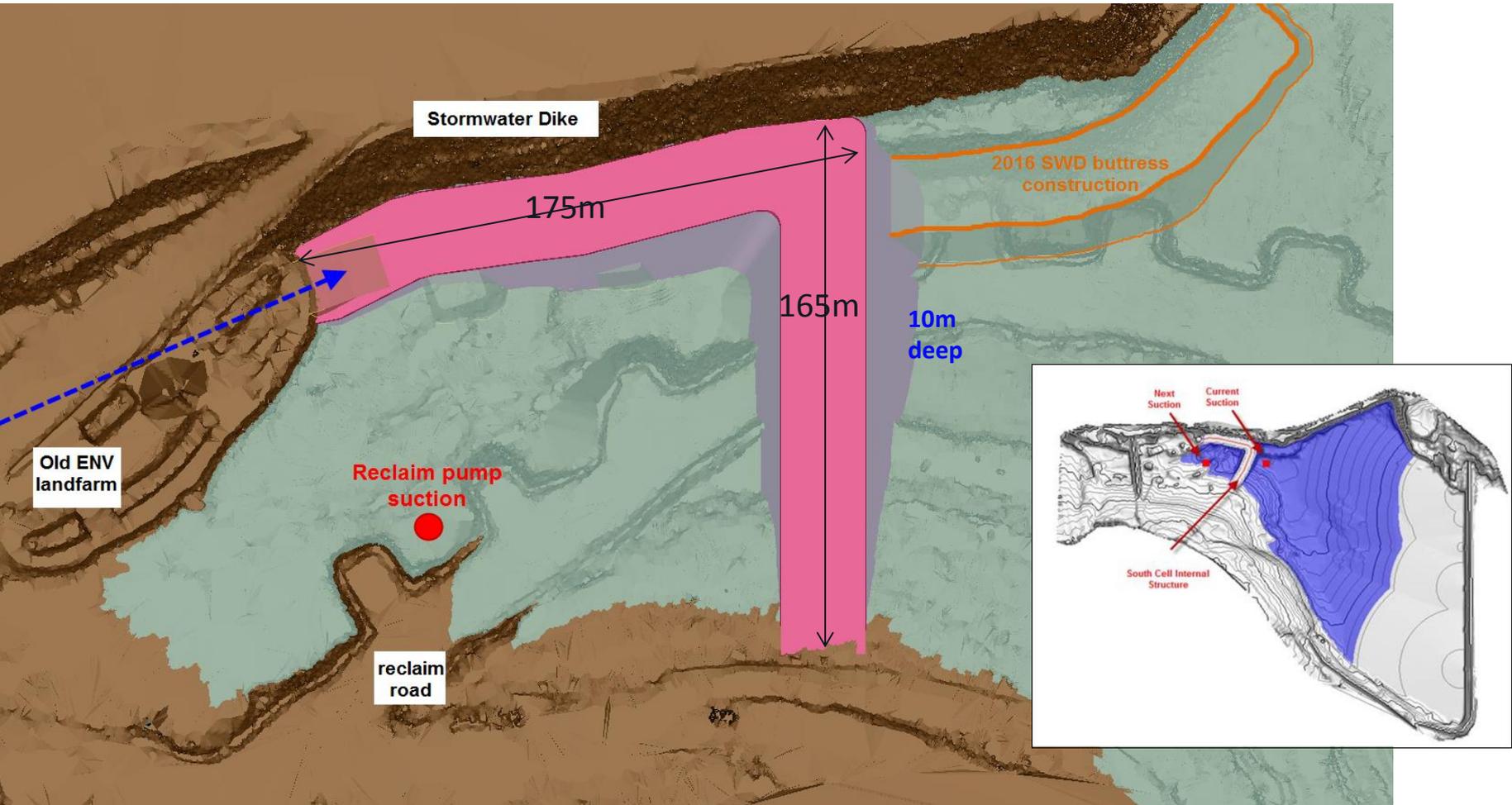
# SC INTERNAL STRUCTURES

## CONTEXT

- Required for enhanced reclaim suction protection from tailings beaches (lower turbidity at the mill)
- Will increase the capacity of the South Cell by depositing more tailings above water
- Approved Dike designer practice for stability (Golder associates)
- BY-product: re-enforcing 2016 SWD buttress by using same access
- No impact on production since 150,000t were budgetted to go to NPAG 135 in October

# DESIGN OF THE INTERNAL STRUCTURE

## OVERVIEW



EXCAVATION	ROCKGROUP	Density	Tonnage
		T per M**3	T
MINED		2.15	122,538.3
	Total	2.15	122,538.3

# DESIGN OF THE INTERNAL STRUCTURE

## AERIAL PHOTOS



# SOUTH CELL INTERNAL STRUCTURES

## DESIGN SPECIFICATIONS

- Access by SWD because access from Saddle road would be too steep, on slippery bedrock and would require critical cables and pipe moves
- Material minimized by choosing narrower spot in the South Cell
- 25.5m wide when on water to avoid turn arounds over water to be consistent with 2016 SWD buttress rationale
- Elevation @ 137.25 i.e. 0.5m over October forecast EOM water elevation as per last deposition plan. Berms needed. (same principle as 2016 SWD that was built @ 132)
- End the works by trenching at 2 locations to allow water flowing

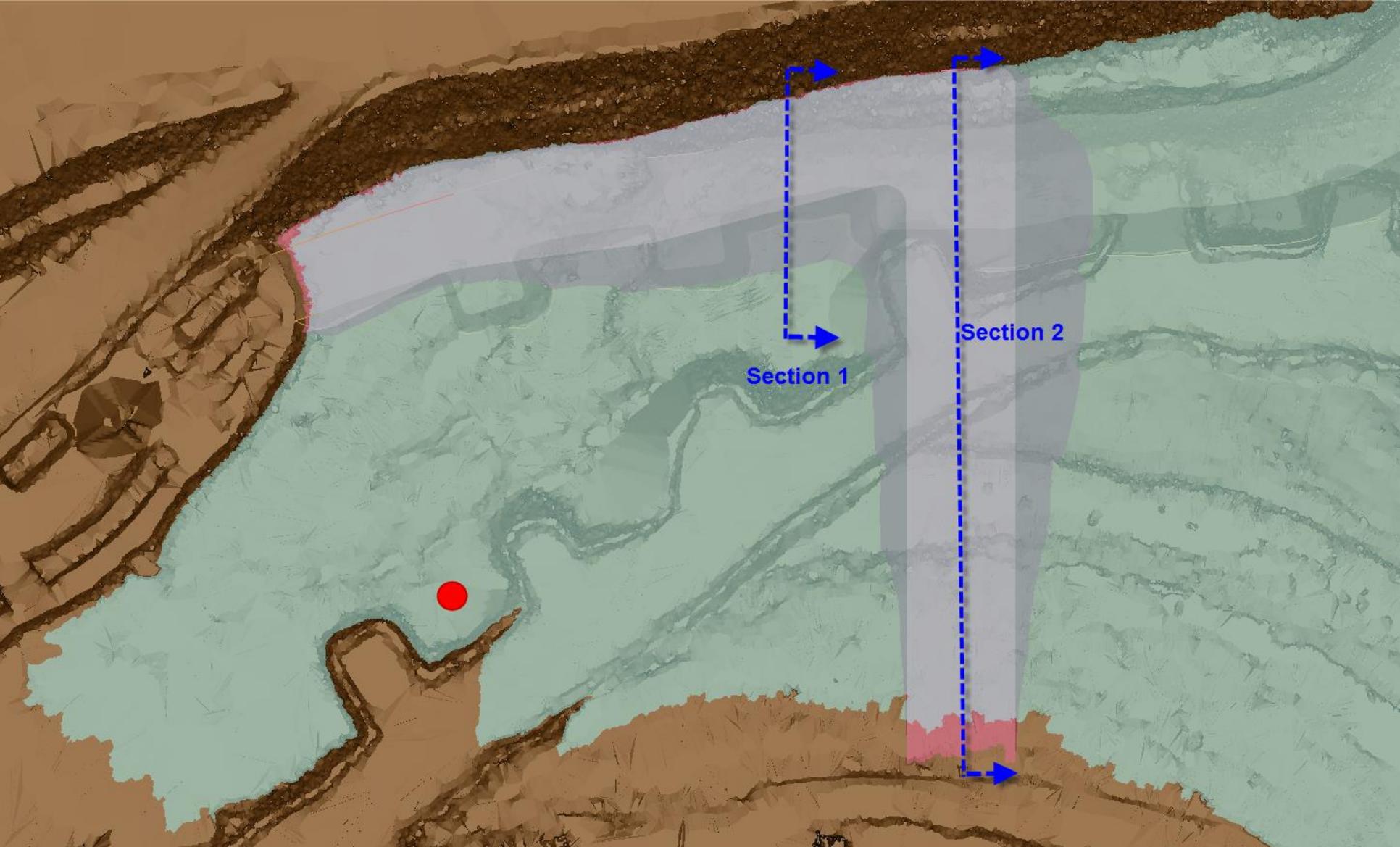
# SOUTH CELL INTERNAL STRUCTURES

## CONSTRUCTION SPECIFICATIONS

- Haul trucks must dump their loads one haul truck length away from the end of the road. The dozer must back itself away from the end of the structure and be located in front of the haul truck when dumping occurs. This is to reduce the amount of weight
- Monitoring needs to be done closely with survey (grade shots and width checks)
- Use 100T trucks only & dozer – No 150T truck
- Road can only be built on day shifts
- Construction rate: Around 10,000T/day when Day shift only
- Total timeframe: about 2 days for widening actual roads
  - Construction: 14 days

# DESIGN OF THE INTERNAL STRUCTURE

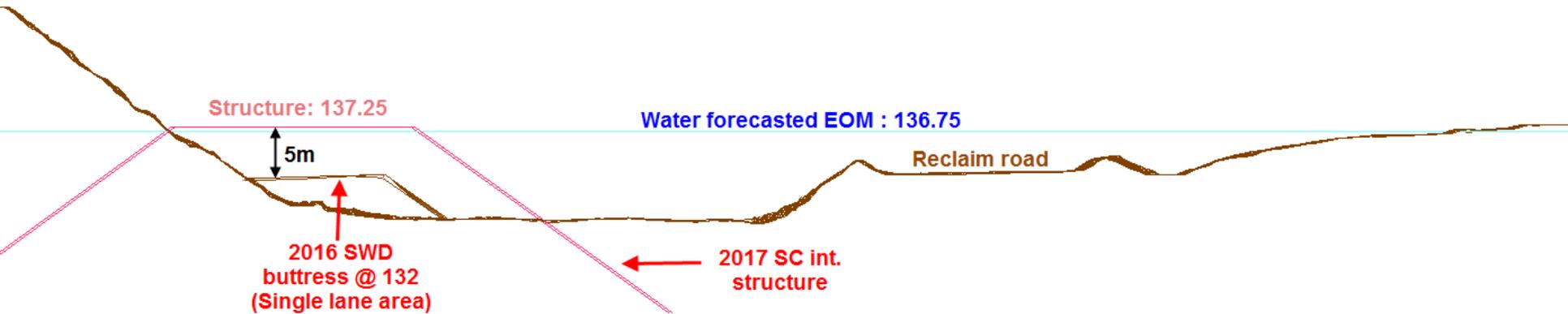
MORE DETAILED



# DESIGN OF THE INTERNAL STRUCTURE

## SECTION VIEWS

### Section 1 – Looking East



### Section 2 – Looking East

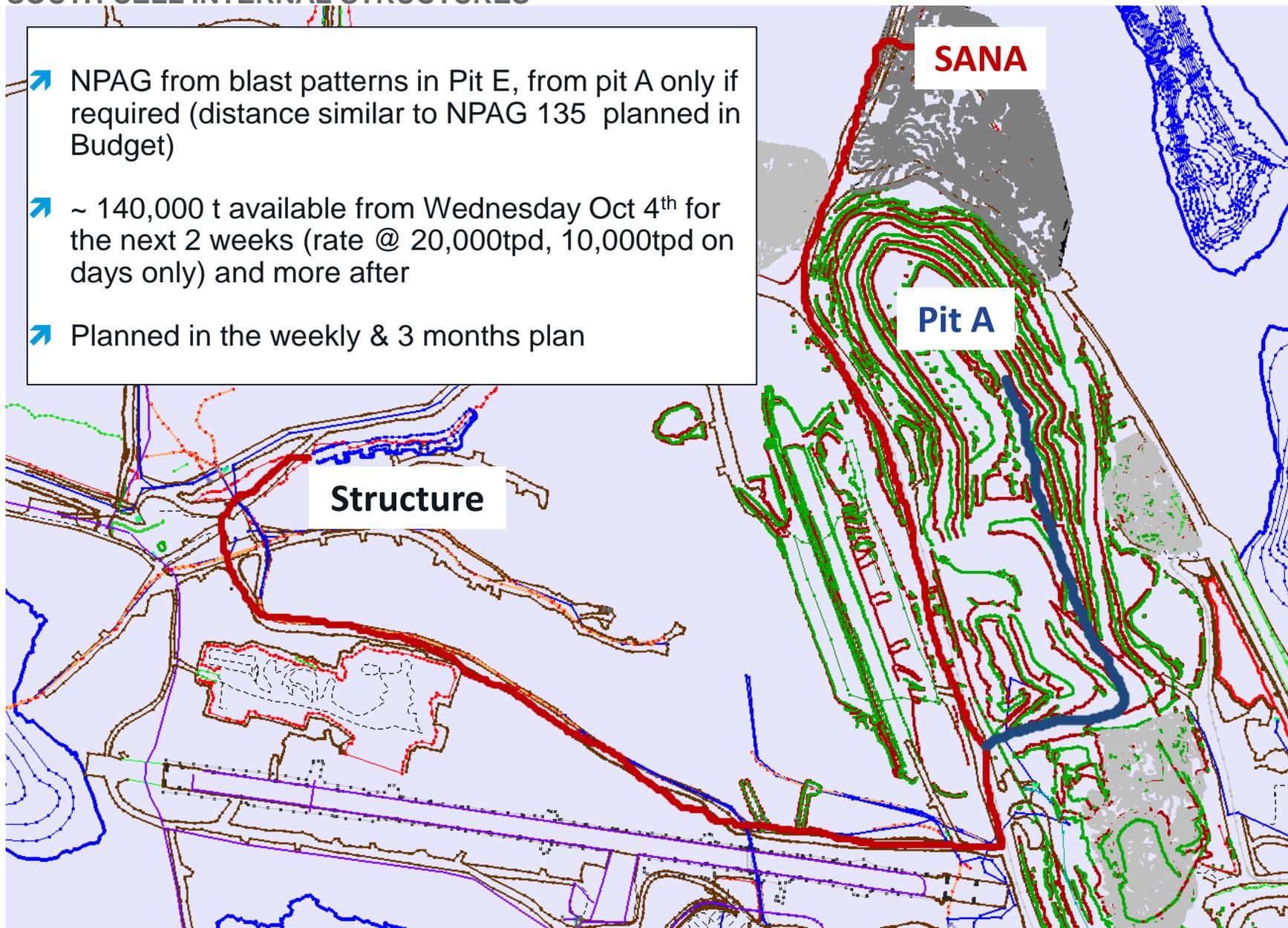




# MATERIAL SPECIFICATIONS & AVAILABILITY

## SOUTH CELL INTERNAL STRUCTURES

- NPAG from blast patterns in Pit E, from pit A only if required (distance similar to NPAG 135 planned in Budget)
- ~ 140,000 t available from Wednesday Oct 4<sup>th</sup> for the next 2 weeks (rate @ 20,000tpd, 10,000tpd on days only) and more after
- Planned in the weekly & 3 months plan

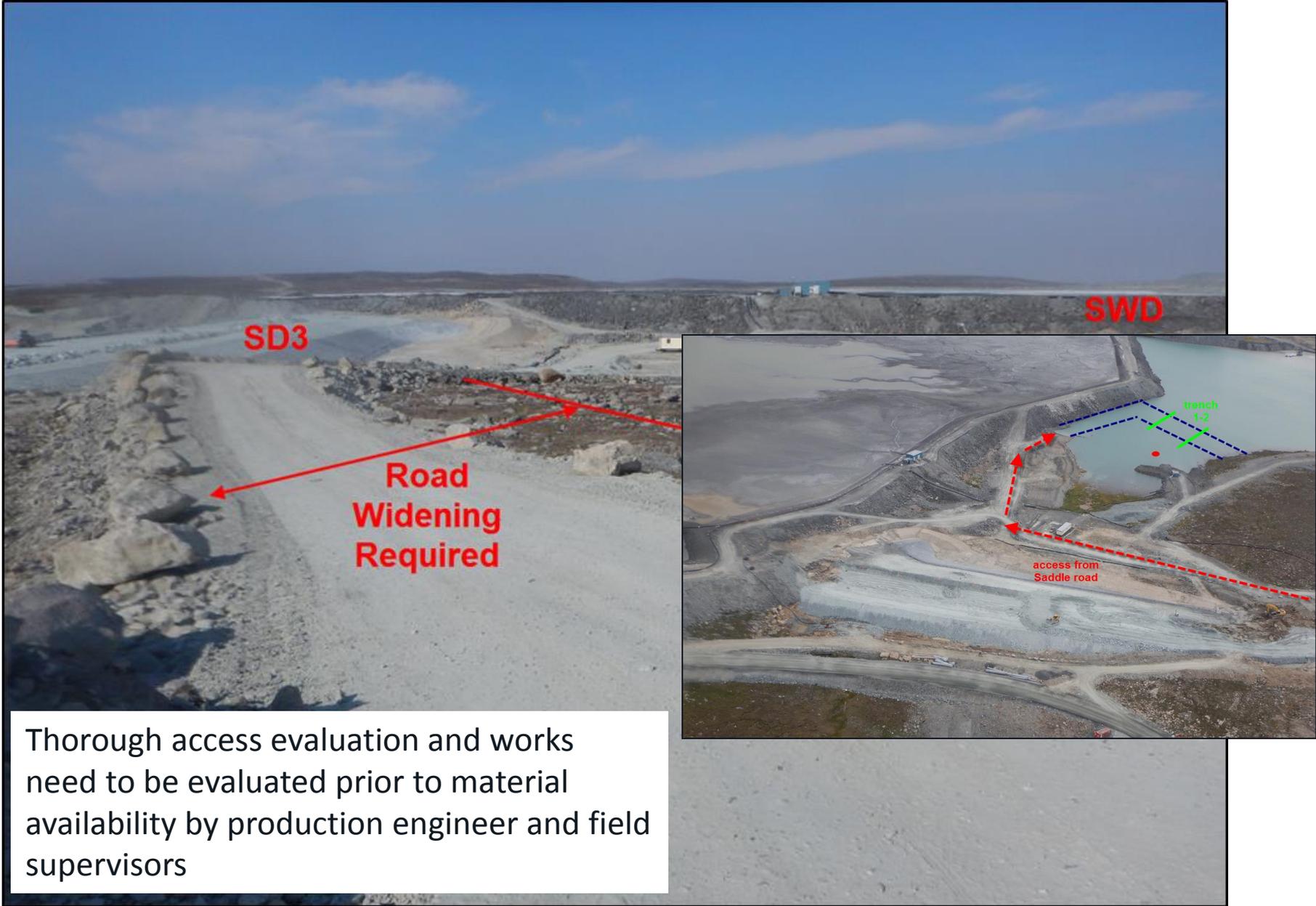




# ROLES & RESPONSIBILITIES WITH NEXT STEPS

## DETAILS

- Assess and modify current accesses (**mine GF & Prod. ENG**)
- Survey to extract crest coordinates and provide stakes and/or required alignment (from work files in the next slide) with daily follow up for construction (**survey**)
- Assign “spotter” for the construction (**Geotech ENG**)
- Ensure planning and quantities are met (**Prod. ENG**)
- Team review the JHA of SWD 2016 buttress to be applied for this internal structures project (as well as latest Vault dewatering roads)  
<P:\Engineering\08-Health&Safety\03-JHA\GEOTECH JHA>  
(JHA to be coordinated by **Geotech coordinator**)
- Works execution (**mine, survey**)



Thorough access evaluation and works need to be evaluated prior to material availability by production engineer and field supervisors

# SYNERGY JOB 1 : MOVE SOIL FROM OLD TO NEW LANDFARM

- ➔ Move soil at old landfarm (near SD3-SWD) to new landfarm
- ➔ Approximately 1200 m<sup>3</sup>

# SPOTTER FORM

Time: _____	Supervisor (print) _____	Supervisor (signature) _____
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## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing	South Cell Pond area: <input type="checkbox"/>	SWD Buttress area: <input type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
Condition of Settlement: _____		

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input type="checkbox"/>	
	Comment / Observation: _____	
	Location: _____	
	Description: _____	

**General Observations:**

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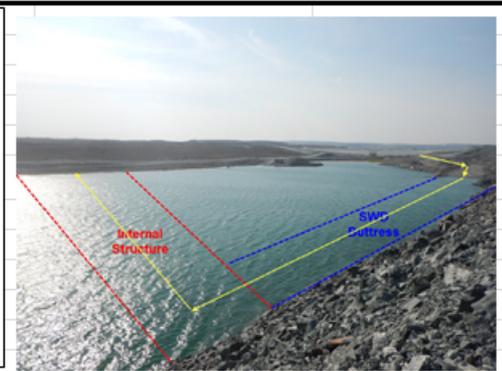
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## REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

**If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.**

# STORMWATER DIKE BUTTRESS

## WORK FILES

- Work files can be found in <P:\Engineering\05-Geotechnic\06-TailingsManagement\2 - SOUTH CELL\14- Internal structure Oct2017>
  
- GEMS surfaces:
  - Internal Structure: ALLtopotr – SC / internal\_structures / 2017
  - Initial topo: ENGdraftEctr – stormwater / 2016 / topo
  - Water elevation: ALLtopotr – Water / 136.75
  - SC Oct 2017 deposition surface (incl. topo up to Saddle road)  
ALLtopotr – South\_cell / EOM / Oct2017
  
- GEMS Polylines : ALLfeatures – Tag: SC\_internal\_structures2017

APPENDIX D  
As-Built Drawings









APPENDIX E  
Spotter Inspection Forms



# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 08/10/2017

Observer (print)

Marouen Ghabi

Observer (signature)

Time: 18h15

Supervisor (print)

\_\_\_\_\_

Supervisor (signature)

\_\_\_\_\_

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/> <u>15-20m</u>	SWD Buttress area: <input type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input type="checkbox"/>
	Comment / Observation: _____
	Location: _____
	Description: _____

### General Observations:

Ice starts to be hard, Danger need to break the ice

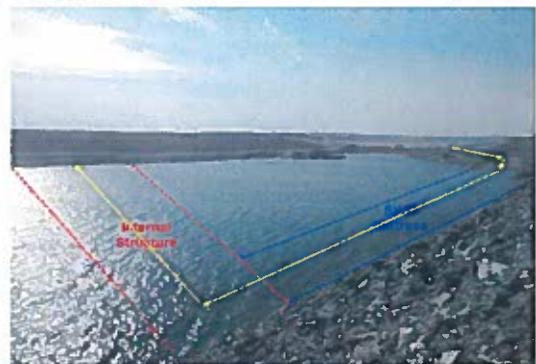
\_\_\_\_\_

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## REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**  
 AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 09-10-17  
 Time: 18:00

Observer (print) Liggins McNeill  
 Supervisor (print) \_\_\_\_\_

Observer (signature) *Liggins McNeill*  
 Supervisor (signature) \_\_\_\_\_

**SC INTERNAL STRUCTURE / SWD BUTTRESS**

Construction ongoing	South Cell Pond area: <input type="checkbox"/>	SWD Buttress area: <input checked="" type="checkbox"/>
	Daily advance (rough): <u>4 METERS</u>	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
	Comment / Observation: _____
	Location: _____
	Description: _____

**General Observations:**

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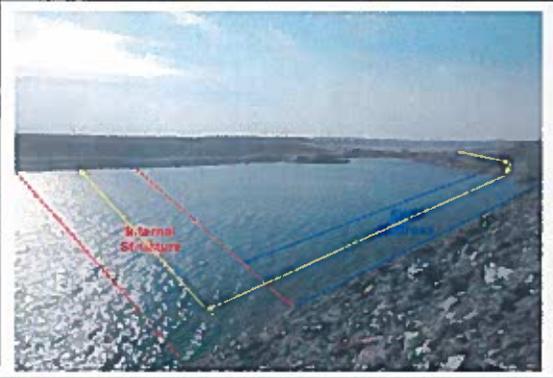
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**REQUIRED ACTIONS:**

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.  
 If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.  
 If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

## SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 10-10-17 Observer (print) Lewis McNeill Observer (signature) [Signature]  
 Time: \_\_\_\_\_ Supervisor (print) \_\_\_\_\_ Supervisor (signature) \_\_\_\_\_

### SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing	South Cell Pond area: <input type="checkbox"/> Daily advance (rough): <u>15 meters</u> Comment / Observation: _____ Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	SWD Buttress area: <input checked="" type="checkbox"/>
Tension crack present?	Comment / Observation: _____ Location of Tension Crack: _____ Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Comment / Observation: _____ Location of Settlement: _____ Condition of Settlement: _____	

### STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Comment / Observation: _____ Location: _____ Description: _____
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**General Observations:**

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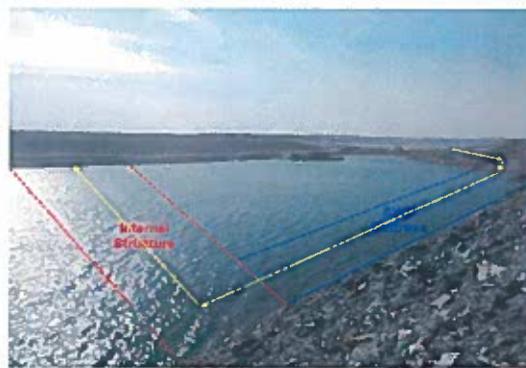
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### REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure Inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



### SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 11-10-17  
Time: 8:00

Observer (print) JOMINK  
Supervisor (print) \_\_\_\_\_

Observer (signature) [Signature]  
Supervisor (signature) \_\_\_\_\_

#### SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing	South Cell Pond area: <input type="checkbox"/>	SWD Buttress area: <input checked="" type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

#### STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
	Comment / Observation: _____
	Location: _____
	Description: _____

**General Observations:**  
EVERYTHING IS SAFE

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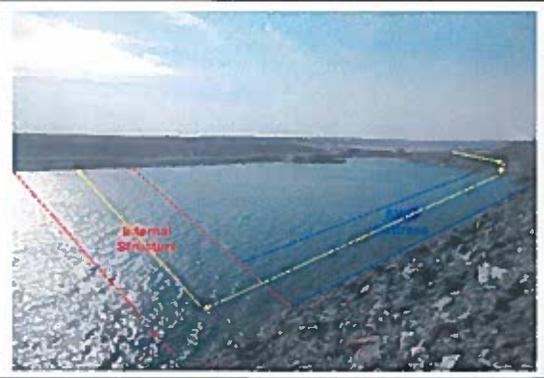
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#### REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.  
If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.  
If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



### SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: Oct 11 2017

Observer (print)

Vincent Duranlea

Observer (signature)

[Signature]

Time: 10:00 / 16:30

Supervisor (print)

\_\_\_\_\_

Supervisor (signature)

\_\_\_\_\_

#### SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/>	SWD Buttress area: <input checked="" type="checkbox"/>
	Daily advance (rough): <u>15 m</u>	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

#### STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
Comment / Observation: <u>The Slope is made of loose rocks.</u>	
Location: _____	
Description: _____	

**General Observations:**

\_\_\_\_\_

\_\_\_\_\_

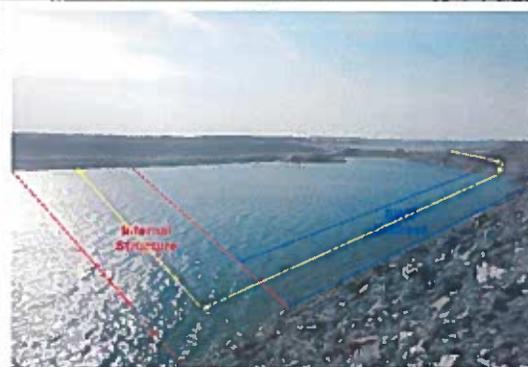
\_\_\_\_\_

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\_\_\_\_\_



#### REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 12-10-17  
Time: 7:00

Observer (print)

Dom. Wick

Observer (signature)

Supervisor (print)

Supervisor (signature)

**SC INTERNAL STRUCTURE / SWD BUTTRESS**

Construction ongoing

South Cell Pond area:

15 M

SWD Buttress area:

Daily advance (rough):  
Comment / Observation:

Y  N

Tension crack present?

Comment / Observation:

Location of Tension Crack:

Condition of Tension Crack:

Settlement present?

Y  N

Comment / Observation:

Location of Settlement:

Condition of Settlement:

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

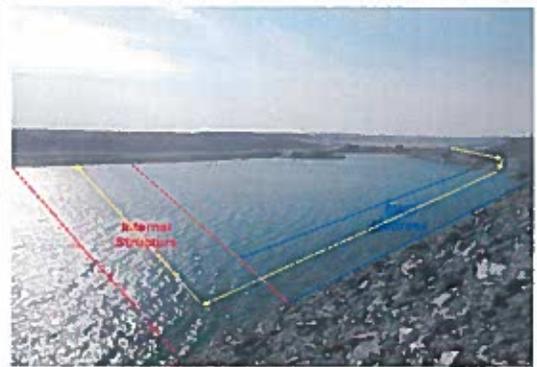
Comment / Observation:

Location:

Description:

**General Observations:**

EVERYTHING IS SAFE



**REQUIRED ACTIONS:**

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



### SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 13-10-17

Observer (print)

DOMIWICK

Observer (signature)

Time: 7:00

Supervisor (print)

\_\_\_\_\_

Supervisor (signature)

\_\_\_\_\_

#### SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

5M

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Y  N

Tension crack present?

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

#### STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

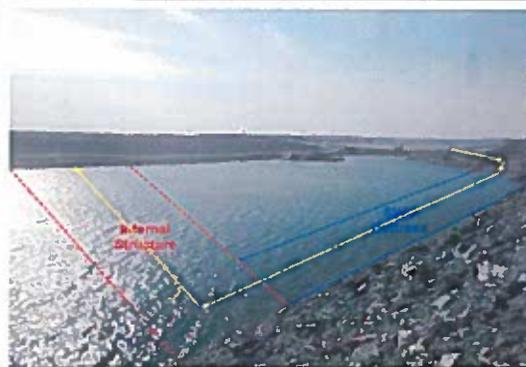
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

**General Observations:**

EVERYTHING IS SAFE



#### REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 13 Oct 2017 Observer (print) Vincent Duran Observer (signature) [Signature]  
 Time: 14:30 Supervisor (print) \_\_\_\_\_ Supervisor (signature) \_\_\_\_\_

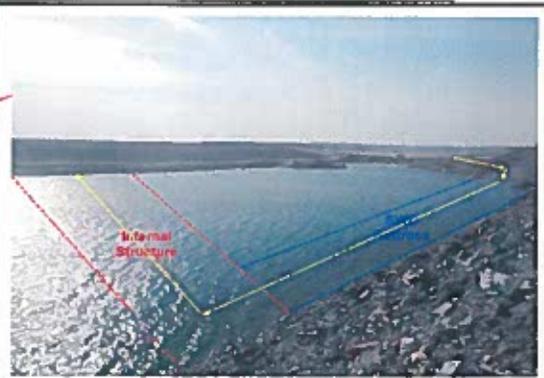
**SC INTERNAL STRUCTURE / SWD BUTTRESS**

Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/> <u>5 m</u>	SWD Buttress area: <input checked="" type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
	Comment / Observation: _____
	Location: <u>loose rocks on the slope</u>
	Description: _____

**General Observations:**  
Not a lot of trucks in the morning.  
Deeper area can explain the short  
advance and the lack of trucks.



**REQUIRED ACTIONS:**

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: October 13 2017 Observer (print) Vincent D'Amico Observer (signature) [Signature]  
 Time: 16:00 Supervisor (print) \_\_\_\_\_ Supervisor (signature) \_\_\_\_\_

**SC INTERNAL STRUCTURE / SWD BUTTRESS**

Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/> <u>20m</u>	SWD Buttress area: <input checked="" type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Y  N

Any movement present on the slope? (Loose rocks, bulging, etc.)

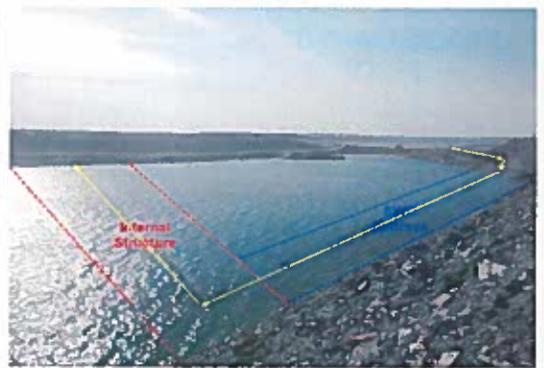
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: The slope is made of loose rocks.

General Observations:

The structure is in good condition, the floor is good and always on grade.



**REQUIRED ACTIONS:**

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



### SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 14-10-17

Observer (print)

DOMINICK

Observer (signature)

Time: 7:00

Supervisor (print)

\_\_\_\_\_

Supervisor (signature)

\_\_\_\_\_

#### SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): 10M

Comment / Observation:

Y  N

Tension crack present?

Comment / Observation:

Location of Tension Crack:

Condition of Tension Crack:

Settlement present?

Y  N

Comment / Observation:

Location of Settlement:

Condition of Settlement:

#### STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

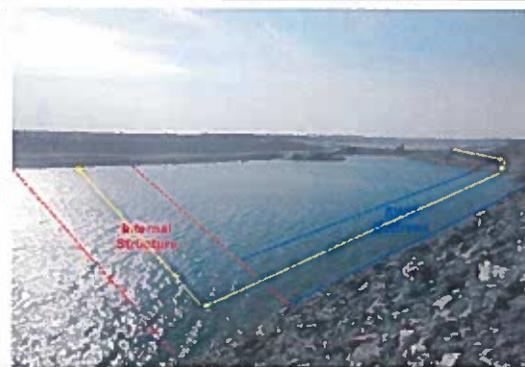
Comment / Observation:

Location:

Description:

**General Observations:**

EVERYTHING IS SAFE



#### REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



### SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 14/10/2017

Observer (print)

Vincent Durako

Observer (signature)

Time: 10:00 AM

Supervisor (print)

\_\_\_\_\_

Supervisor (signature)

\_\_\_\_\_

#### SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:



SWD Buttress area:



Daily advance (rough):

1.0 m

Comment / Observation:

Y  N

Comment / Observation:

Tension crack present?

Location of Tension Crack:

Condition of Tension Crack:

Settlement present?

Y  N

Comment / Observation:

Location of Settlement:

Condition of Settlement:

#### STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

Comment / Observation:

Location:

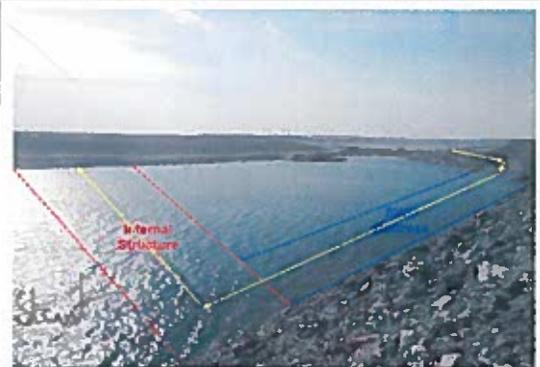
Description:

#### General Observations:

The floor is on grade.

Lot of dust was coming from the water cell.

total tonnes 26,003 since project



#### REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 15-10-17

Observer (print)

DOMINICK

Observer (signature)

Time: 7:00

Supervisor (print)

\_\_\_\_\_

Supervisor (signature)

\_\_\_\_\_

**SC INTERNAL STRUCTURE / SWD BUTTRESS**

Construction ongoing

South Cell Pond area:

25 M

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Y  N

Comment / Observation: \_\_\_\_\_

Tension crack present?

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Y  N

Comment / Observation: \_\_\_\_\_

Settlement present?

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Y  N

Any movement present on the slope? (Loose rocks, bulging, etc.)

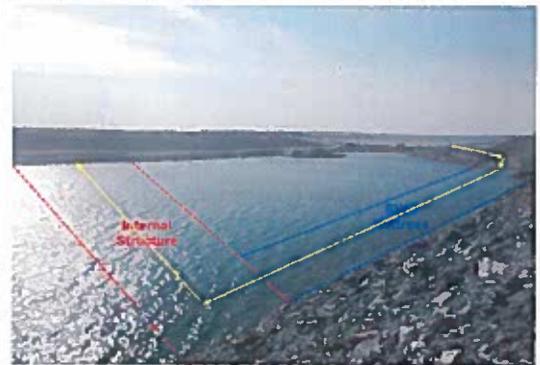
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

**General Observations:**

EVERYTHING IS SAFE



**REQUIRED ACTIONS:**

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 15/10/2017

Observer (print)

Vincent D'Amico

Observer (signature)

Time: 17:30

Supervisor (print)

\_\_\_\_\_

Supervisor (signature)

\_\_\_\_\_

**SC INTERNAL STRUCTURE / SWD BUTTRESS**

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): 15-20

Comment / Observation: \_\_\_\_\_

Tension crack present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

Comment / Observation: \_\_\_\_\_

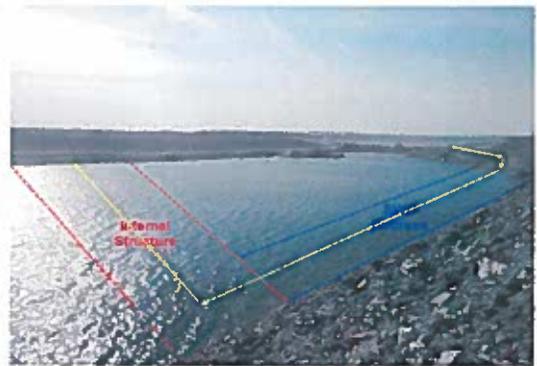
Location: \_\_\_\_\_

Description: \_\_\_\_\_

**General Observations:**

They now start pushing toward the internal structure (corner). 6,177 T during the dump.

33060T total



**REQUIRED ACTIONS:**

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 21-10-2017 Observer (print) Michael El-Hachem Observer (signature) MHE  
 Time: 07:00 Supervisor (print) \_\_\_\_\_ Supervisor (signature) \_\_\_\_\_

## SC INTERNAL STRUCTURE / SWD BUTTRESS

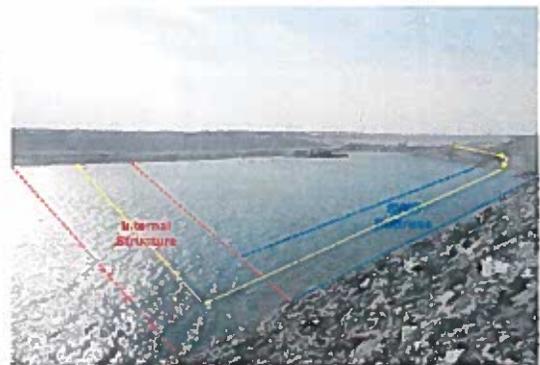
Construction ongoing	South Cell Pond area: <input type="checkbox"/>	SWD Buttress area: <input type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
	Y <input type="checkbox"/> N <input type="checkbox"/>	
Tension crack present?	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
	Y <input type="checkbox"/> N <input type="checkbox"/>	
Settlement present?	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

	Y <input type="checkbox"/> N <input type="checkbox"/>
Any movement present on the slope? (Loose rocks, bulging, etc.)	Comment / Observation: _____
	Location: _____
	Description: _____

**General Observations:**

Material gradually sloughing down the edge slope of internal structure. Advised operator to maintain higher beam and dump trucks further away from the edge



## REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 22-10-17  
Time: 7:30 am

Observer (print) \_\_\_\_\_  
Supervisor (print) \_\_\_\_\_

Charles Upton

Observer (signature) \_\_\_\_\_  
Supervisor (signature) \_\_\_\_\_

Charles Upton

**SC INTERNAL STRUCTURE / SWD BUTTRESS**

Construction ongoing	South Cell Pond area: <input type="checkbox"/>	SWD Buttress area: <input checked="" type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
	Comment / Observation: _____
	Location: _____
	Description: _____

**General Observations:**

everything is good

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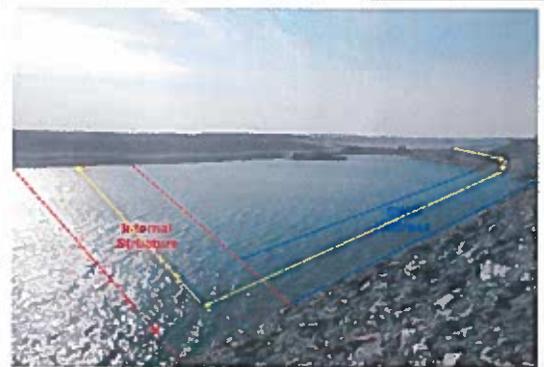
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**REQUIRED ACTIONS:**

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.  
 If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.  
 If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: OCT 24 2017

Observer (print) Travis Rusk

Observer (signature) *[Signature]*

Time: \_\_\_\_\_

Supervisor (print) \_\_\_\_\_

Supervisor (signature) \_\_\_\_\_

**SC INTERNAL STRUCTURE / SWD BUTTRESS**

Construction ongoing	South Cell Pond area: <input type="checkbox"/>	SWD Buttress area: <input checked="" type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
	Comment / Observation: _____
	Location: _____
	Description: _____

**General Observations:**

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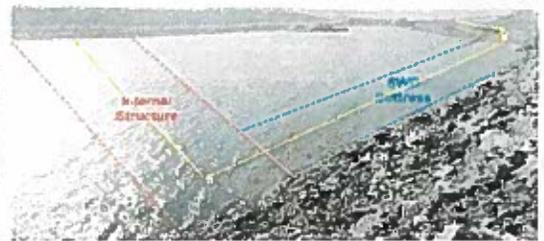
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**REQUIRED ACTIONS:**

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.  
 If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.  
 If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 25-10-17

Time: 10h15

Observer (print)

*Guillaume Verin*

Observer (signature)

Supervisor (print)

*Sebastien...*

Supervisor (signature)

*[Handwritten signature]*

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Y  N

Tension crack present?

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

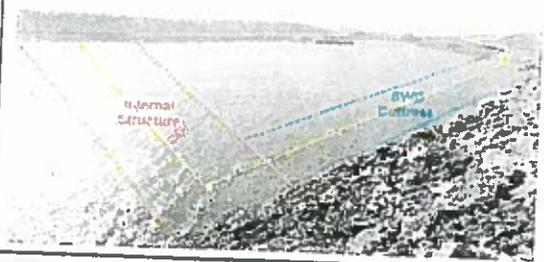
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

General Observations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: Oct 27 / 2017  
 Time: 09:45 am

Observer (print) Peter Kubacki Observer (signature) Peter Kubacki  
 Supervisor (print) Dariusz Gosciniak Supervisor (signature) Dariusz Gosciniak

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/> Daily advance (rough): _____ Comment / Observation: _____ Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	SWD Buttress area: <input type="checkbox"/>
Tension crack present?	Comment / Observation: _____ Location of Tension Crack: _____ Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Comment / Observation: _____ Location of Settlement: _____ Condition of Settlement: _____	

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input type="checkbox"/> Comment / Observation: _____ Location: _____ Description: _____
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**General Observations:**

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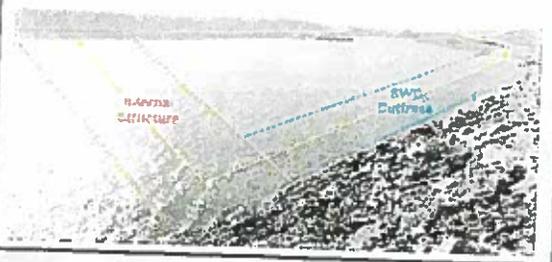
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## REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 28/10/17

Observer (print)

ALECK PARD

Observer (signature)

*Aleck Pard*

Time: \_\_\_\_\_

Supervisor (print)

Sequoia General

Supervisor (signature)

*Sequoia General*

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Tension crack present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

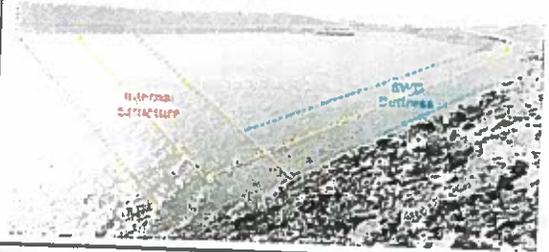
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

### General Observations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 29/10/17

Observer (print)

*Lionel Duranayres*

Observer (signature)

Time: \_\_\_\_\_

Supervisor (print)

*Jacques Decroix*

Supervisor (signature)

*[Handwritten signature]*

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Y  N

Tension crack present?

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

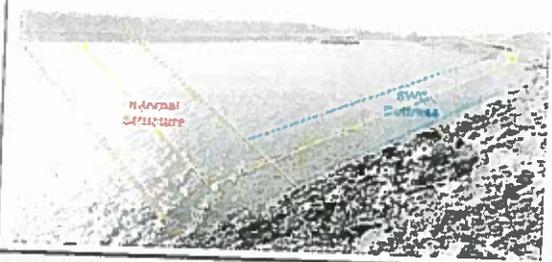
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

### General Observations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: Oct 29, 17  
 Time: \_\_\_\_\_

Observer (print) \_\_\_\_\_  
 Supervisor (print) \_\_\_\_\_

*John By...*  
*Supervisor*

Observer (signature) \_\_\_\_\_  
 Supervisor (signature) \_\_\_\_\_

*[Signature]*  
*[Signature]*

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_  
 Comment / Observation: \_\_\_\_\_

Y  N

Tension crack present?

Comment / Observation: \_\_\_\_\_  
 Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_  
 Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

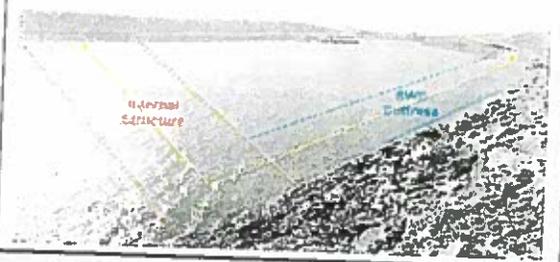
Y  N

Comment / Observation: \_\_\_\_\_  
 Location: \_\_\_\_\_

Description: \_\_\_\_\_

### General Observations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: Oct 28 2017

Observer (print)

Lionel Duminyang

Observer (signature)

Time: \_\_\_\_\_

Supervisor (print)

Seamus O'Connell

Supervisor (signature)

*[Handwritten signatures]*

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Y  N

Tension crack present?

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

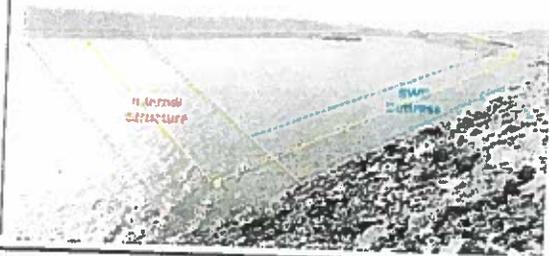
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

### General Observations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 3/10/17

Observer (print)

*Regis Jemba*  
**JLA FORCE**

Observer (signature)

*[Signature]*

Time: \_\_\_\_\_

Supervisor (print)

Supervisor (signature)

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Y  N

Tension crack present?

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

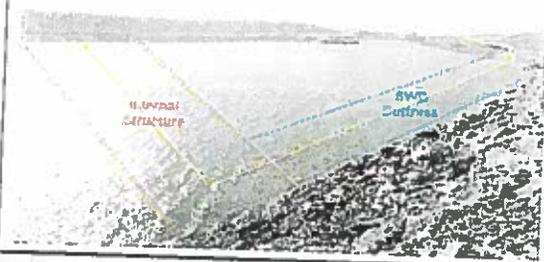
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

### General Observations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 31/10/2017  
Time: 17:10

Observer (print) Vincent Duranlem Observer (signature) [Signature]  
Supervisor (print) \_\_\_\_\_ Supervisor (signature) \_\_\_\_\_

**SC INTERNAL STRUCTURE / SWD BUTTRESS**

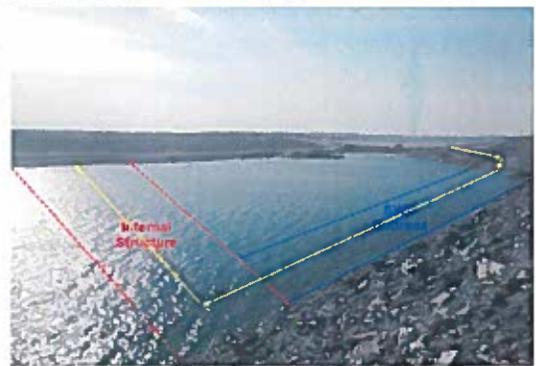
Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/> <u>6 m</u>	SWD Buttress area: <input type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
	Comment / Observation: _____
	Location: _____
	Description: _____

**General Observations:**

- Ice is forming around the dumping area.  
- The area is dusty. The dust come from the tailing above the working place.



**REQUIRED ACTIONS:**

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.  
If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.  
If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



### SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: Nov 2 2017

Observer (print)

Vincent Dwork

Observer (signature)

*[Signature]*

Time: 10:30

Supervisor (print)

\_\_\_\_\_

Supervisor (signature)

\_\_\_\_\_

#### SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Tension crack present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

#### STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

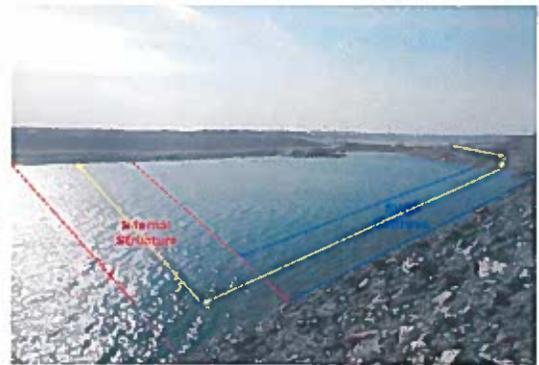
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

**General Observations:**

The structure seems to be very large.  
Dusty from the tailing above.



#### REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: Nov 15 / 17  
Time: 11:00 AM

Observer (print)

Alain Hine Observer (signature)

Supervisor (print)

J. L. ... Supervisor (signature)

ACK

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Y  N

Comment / Observation: \_\_\_\_\_

Tension crack present?

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

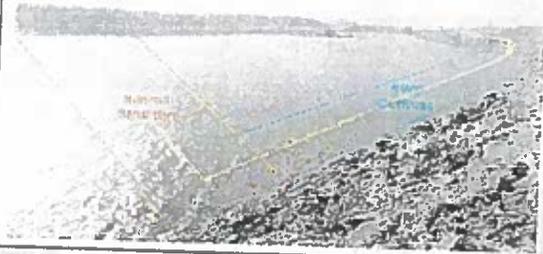
Y  N

Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

General Observations:



## REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 11/2/17  
 Time: 900

Observer (print)

Ryan Amy  
JLarocca

Observer (signature)

Ryan Amy

Supervisor (print)

Supervisor (signature)

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/>	SWD Buttress area: <input type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
	Y <input type="checkbox"/> N <input type="checkbox"/>	
Tension crack present?	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
Settlement present?	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
Any movement present on the slope? (Loose rocks, bulging, etc.)	Comment / Observation: _____
	Location: _____
	Description: _____

General Observations:

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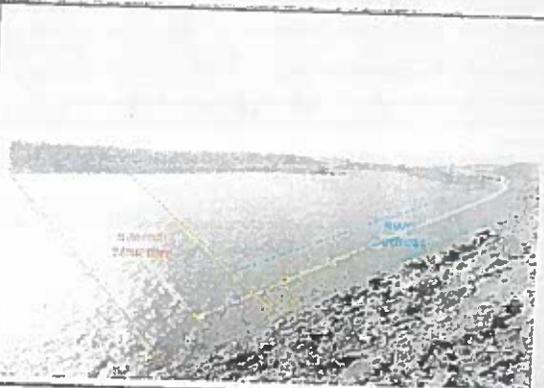
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## REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure Inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 11/2/2017  
 Time: 10:27AM

Observer (print) natasha Negyango Observer (signature) [Signature]

Supervisor (print) S. LARACE Supervisor (signature) [Signature]

## SC INTERNAL STRUCTURE / SWD BUTTRISS

Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/>	SWD Buttress area: <input type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
Tension crack present?	Comment / Observation: <u>No crack</u>	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
	Comment / Observation: <u>No</u>	
	Location of Settlement: _____	
	Condition of Settlement: _____	

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input type="checkbox"/>
Comment / Observation: _____	
Location: _____	
Description: _____	

General Observations:

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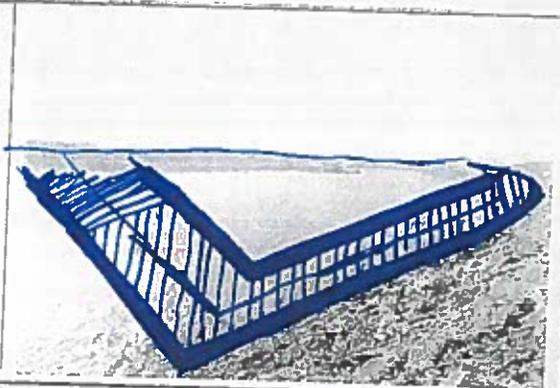
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### REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

**SC INTERNAL STRUCTURES VISUAL INSPECTION FORM**  
AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: Nov 2 2017 Observer (print) Vincent Durand Observer (signature)   
 Time: 1:30 Supervisor (print) \_\_\_\_\_ Supervisor (signature) \_\_\_\_\_

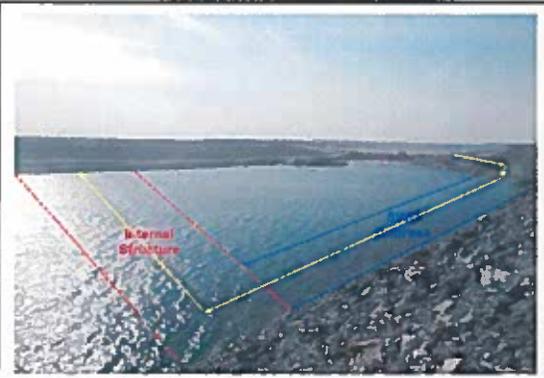
**SC INTERNAL STRUCTURE / SWD BUTTRESS**

Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/> <u>1m</u>	SWD Buttress area: <input type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
	Comment / Observation: _____
	Location: _____
	Description: _____

**General Observations:**  
Only few loads during the shift.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**REQUIRED ACTIONS:**

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.  
 If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.  
 If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



### SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: Nov 3 2017

Observer (print)

Vincent Durand

Observer (signature)

Time: \_\_\_\_\_

Supervisor (print)

\_\_\_\_\_

Supervisor (signature)

\_\_\_\_\_

#### SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Tension crack present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

#### STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

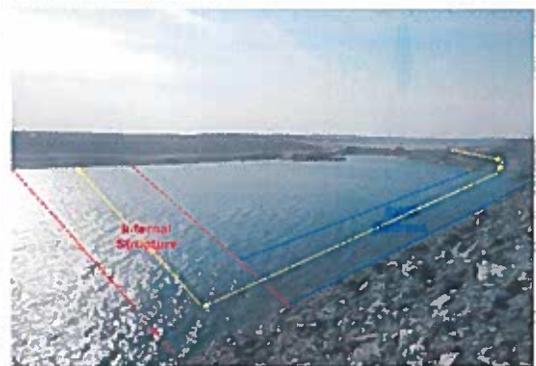
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

**General Observations:**

150 Tonners were dumping at the time



#### REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure Inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 11/03/17  
Time: 2:00

Observer (print)

Loanda

Observer (signature)

Supervisor (print)

JL AIONCE

Supervisor (signature)

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Y  N

Comment / Observation: \_\_\_\_\_

Tension crack present?

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Y  N

Any movement present on the slope? (Loose rocks, bulging, etc.)

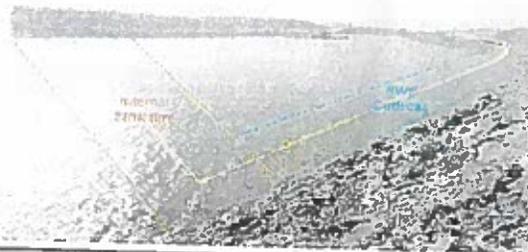
Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

### General Observations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.



Date: Nov 4 2017 Observer (print) Vincent Duran Observer (signature)   
 Time: \_\_\_\_\_ Supervisor (print) \_\_\_\_\_ Supervisor (signature) \_\_\_\_\_

**SC INTERNAL STRUCTURE / SWD BUTTRESS**

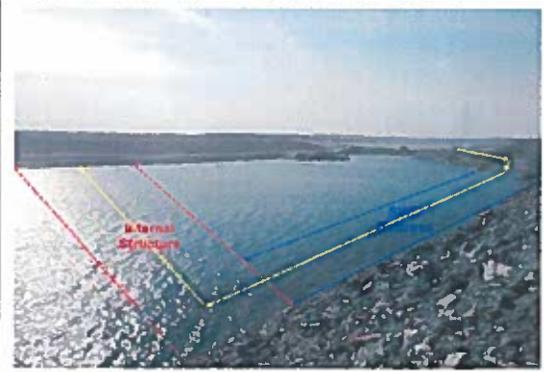
Construction ongoing	South Cell Pond area: <input checked="" type="checkbox"/> <u>25 m</u>	SWD Buttress area: <input type="checkbox"/>
	Daily advance (rough): _____	
	Comment / Observation: _____	
Tension crack present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Tension Crack: _____	
	Condition of Tension Crack: _____	
Settlement present?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
	Comment / Observation: _____	
	Location of Settlement: _____	
	Condition of Settlement: _____	

**STORMWATER DIKE SLOPE** *(only applicable when dumping on buttress area)*

	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
Any movement present on the slope? (Loose rocks, bulging, etc.)	Comment / Observation: _____
	Location: _____
	Description: _____

**General Observations:**

The project was completed  
Water was pouring through the structure toward the end. They put another load on it to cover.



**REQUIRED ACTIONS:**

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.  
 If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.  
 If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: Nov 04/2017

Observer (print) Dan Doucette

Observer (signature)

Time: 01:30 PM

Supervisor (print) J. Lawrence

Supervisor (signature)

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing South Cell Pond area:  SWD Buttress area:

Daily advance (rough): \_\_\_\_\_  
Comment / Observation: going well  
Y  N

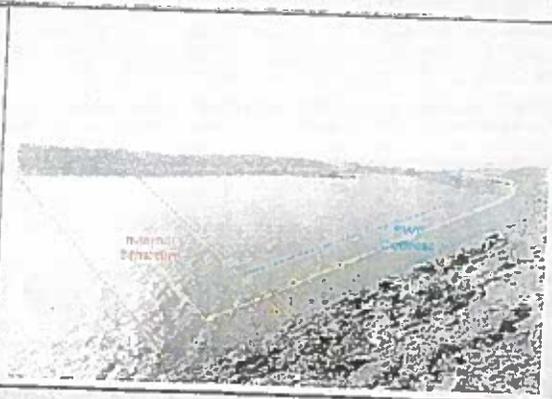
Tension crack present? Location of Tension Crack: going well  
Condition of Tension Crack: \_\_\_\_\_

Settlement present? Y  N   
Comment / Observation: going well  
Location of Settlement: \_\_\_\_\_  
Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE (only applicable when dumping on buttress area)

Any movement present on the slope? (Loose rocks, bulging, etc.) Y  N   
Comment / Observation: going well  
Location: \_\_\_\_\_  
Description: \_\_\_\_\_

General Observations:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



### REQUIRED ACTIONS:

- If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10.
- If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.
- If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

# SC INTERNAL STRUCTURES VISUAL INSPECTION FORM

AGNICO-EAGLE MINES MEADOWBANK PROJECT



Date: 06-11-2017

Observer (print)

Krueger

Observer (signature)

[Signature]

Time: 8:00

Supervisor (print)

SLA FORCE

Supervisor (signature)

[Signature]

## SC INTERNAL STRUCTURE / SWD BUTTRESS

Construction ongoing

South Cell Pond area:

SWD Buttress area:

Daily advance (rough): \_\_\_\_\_

Comment / Observation: \_\_\_\_\_

Y  N

Tension crack present?

Comment / Observation: \_\_\_\_\_

Location of Tension Crack: \_\_\_\_\_

Condition of Tension Crack: \_\_\_\_\_

Settlement present?

Y  N

Comment / Observation: \_\_\_\_\_

Location of Settlement: \_\_\_\_\_

Condition of Settlement: \_\_\_\_\_

## STORMWATER DIKE SLOPE *(only applicable when dumping on buttress area)*

Any movement present on the slope? (Loose rocks, bulging, etc.)

Y  N

Comment / Observation: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_

General Observations:



## REQUIRED ACTIONS:

If tension cracks or settlement are present on the buttress/structure inform Geotechnical Supervisor on Channel 10

If tension cracks or settlement is present on the buttress/structure and growing larger evacuate all workers from buttress on Channel 11. Call Geotech Supervisor.

If material failure occurs on the buttress and a worker is in danger call a Code 1 on Channel 11.

APPENDIX F  
Signed JHA



**JOB HAZARD ANALYSIS WORKSHEET**

**South Cell Internal Structure Construction**  
 Mine General Foreman: Walter Standing/Pat Camarotto  
 Geotechnical Coordinator : Frédérick L.Bolduc / Michel Groleau  
 Engineering Superintendent: Pierre McMullen  
 Surveyor: AEM

<b>FACILITY / SITE:</b>	Meadowbank	<b>DATE:</b>	October 4 <sup>th</sup> 2017
<b>DEPARTMENT:</b>	Engineering/Mine	<b>REVIEW DATE(S):</b>	-
<b>JOB BEING ANALYSED:</b>	South Cell internal structure	<b>TEAM LEADER:</b>	Walter Standing / Geotech team
<b>JOB DESCRIPTION:</b> An internal structure made of rockfill is required to be built in the South Cell to optimize the tailings deposition. This structure will be built by dumping rockfill in the water of the South Cell over the SWD buttress and on a foundation of till and lakebed sediment			
Step	Describe Job Steps	Hazards/Potential Incidents	Risk Control Methods Required
1	Mine trucks (100t only) will haul rockfill from the pit to the area passing by the access adjacent to the airstrip (Saddle Road).	Haulage on access adjacent to airstrip.  Potential traffic on the access adjacent to airstrip.  Coactivity with the Dikes construction haul trucks around the Saddle Dam 3.	Only 100t haul trucks to be used with experienced operators.  Only same experienced operators will be allowed to perform this task.  Speed limit while hauling to the internal structure is 20km/h.  Equipment must be cleared from the access adjacent to the airstrip when plane is on final approach and during takeoff. Job supervisor will provide the go ahead to resume haulage on the access adjacent to the airstrip.  All equipment to be on dike construction channel (Channel 10).  Good visibility and communication on the airstrip access between haul trucks and around the SD3 structure.  Surveyor will install picket to delimit the road widening (to make sure the work is not near the electrical cable)  Maintain adequate berms on the access.



**JOB HAZARD ANALYSIS WORKSHEET**

**South Cell Internal Structure Construction**

Mine General Foreman: Walter Standing/Pat Camarotto  
 Geotechnical Coordinator : Frédérick L.Bolduc / Michel Groleau  
 Engineering Superintendent: Pierre McMullen  
 Surveyor: AEM

			Communication will be sent to Mill, E&I, Mine and Sana before the beginning of the work to inform them of the task.
2	Working on water	<p>Haulage traffic in the construction area.</p> <p>Road stability issues (settlement and potential road footing failure). When near water potential for falling in the water, drowning or hypothermia.</p>	<p>Work will only be done during the day shift.</p> <p>Prior to entering the area, the area must be analyzed for all hazards (i.e. other hauling equipment, rolling surface quality, road stability, etc).</p> <p>Berms to be maintained at the adequate height for 100t haul trucks.</p> <p>Constant inspections by all operators must be completed to look for the development of tension cracks in the rockfill structure. In the event a tension crack is observed work is to be suspended, the construction area cleared of all personnel and equipment, and the supervisor contacted. An inspection by the Geotechnical Engineer and Mine General Foreman will then be conducted to re-evaluate the construction.</p> <p>Observer will be added during dayshift while the internal structure is being constructed. Observer will work on the water side of the internal structure. Observer will periodically walk the rockfill structure to look for tension cracks and settlement.</p>

**JOB HAZARD ANALYSIS WORKSHEET**



**South Cell Internal Structure Construction**  
 Mine General Foreman: Walter Standing/Pat Camarotto  
 Geotechnical Coordinator : Frédérick L.Bolduc / Michel Groleau  
 Engineering Superintendent: Pierre McMullen  
 Surveyor: AEM

			<p>Inspections by the Geotech Technician must be conducted. At least 2 field visit per shift will be completed.</p> <p>Haul truck drivers and dozer operators need to disconnect seat belts while on water base to allow for escape should the equipment fall in water.</p> <p>Wear all required PPE and lifejackets when on the rockfill structure built in the water.</p> <p>Haul truck drivers and dozer operators need to have a hammer to shatter the windows since they are sealed and can't be opened, that is to allow for escape should the equipment fall in water.</p> <p>A life saver ring on a stand need to be installed 50 m from the edge of the rockfill structure water and kept there at all time during the earthworks. The observer will be responsible to move this ring</p> <p>All personnel on foot need to wear proper PPE (life vest) before entering the area over water.</p>
3	Haul truck must turn around clockwise to the dozer and backup to the dumping area.	Road stability issues (settlement and potential road footing failure). If near water potential for falling in the water, drowning or hypothermia.	<p>Refer to point (2) – Working on water</p> <p>The dozer operator will act as a spotter for the haul trucks when backing up and must maintain adequate visual or radio contact.</p>



**JOB HAZARD ANALYSIS WORKSHEET**

**South Cell Internal Structure Construction**  
 Mine General Foreman: Walter Standing/Pat Camarotto  
 Geotechnical Coordinator : Frédérick L.Bolduc / Michel Groleau  
 Engineering Superintendent: Pierre McMullen  
 Surveyor: AEM

4	Haul truck dumping load at the dozer location.	Road stability issues (settlement and potential road footing failure). If near water potential for falling in the water, drowning or hypothermia.	<p>Refer to point (2) – Working on water</p> <p>The dumping platform must be kept about 2% inclined at dumping edge as of normal procedures.</p> <p>Only experienced haul truck drivers will be allowed to perform this job.</p> <p>The haul truck must dump its load one haul truck length away from the end of the road.</p> <p>The dozer must back itself away from the end of the platform and be located in front of the haul truck when dumping occurs. This is to reduce the amount of weight at the end of the internal structure to promote road stability.</p>
5	Dozer to push the load to advance the platform construction.	Road stability issues (settlement and potential road footing failure). If near water potential for falling in the water, drowning or hypothermia.	<p>Refer to point (2) – Working on water</p> <p>The dumping platform must be kept about 2% inclined at dumping edge as of normal procedures.</p>
6	Technical personnel (Surveyors and Geotech tech) performing their daily follow up.	<p>Be hit by the dozer or haul trucks.</p> <p>If near water potential for falling in the water, drowning or hypothermia.</p>	<p>Refer to point (2) – Working on water</p> <p>Ensure good communication between the personnel on foot and the production equipments.</p>
7	Unauthorized vehicle accessing the structure	Falling in water	The access will be bermed at the end of the job when the excavator trench the

**JOB HAZARD ANALYSIS WORKSHEET**



**South Cell Internal Structure Construction**  
 Mine General Foreman: Walter Standing/Pat Camarotto  
 Geotechnical Coordinator : Frédérick L.Bolduc / Michel Groleau  
 Engineering Superintendent: Pierre McMullen  
 Surveyor: AEM

		structure
--	--	-----------

**Permits Required (check all that apply )**

LOTO:	<input type="checkbox"/>	Confined Space	
Hot work	<input type="checkbox"/>	Pre Excavation	
Electrical Work	<input type="checkbox"/>	Lift Permit	

**PPE (check all that apply)**

Safety Glasses	<input checked="" type="checkbox"/>	Safety Boots	<input checked="" type="checkbox"/>
Hardhat	<input checked="" type="checkbox"/>	Face shield	
Gloves	<input type="checkbox"/>	Welding helmet	
Kevlar Gloves	<input type="checkbox"/>	Earplugs	
Chemical Gloves	<input type="checkbox"/>	Ear muffs	
Apron	<input type="checkbox"/>	Chemical clothing	
Goggles	<input type="checkbox"/>	Respirator	

**Emergency Information :** CODE 1 CODE 1 CODE 1 - ADVISE SUPERVISOR IN CHARGE OF WORK (MINE SUPERVISOR / DISPATCH)

Evacuation Route:	<u>EXIT TOWARDS PORTAGE WTP (TOWARDS AWPR)</u>
Evacuation Signal:	
Assembly Point:	<u>MINE DISPATCH AREA</u>
Location of Eyewash/shower:	
Emergency phone number:	<u>CODE 1 CODE 1 CODE 1 SUPERVISOR OFFICE RADIO CHANNEL 13</u>
First aid location:	<u>CONTACT SUPERVISOR</u>



**JOB HAZARD ANALYSIS WORKSHEET**

**South Cell Internal Structure Construction**

Mine General Foreman: Walter Standing/Pat Camarotto  
 Geotechnical Coordinator : Frédérick L.Bolduc / Michel Groleau  
 Engineering Superintendent: Pierre McMullen  
 Surveyor: AEM

*Note: LOTO acronym for Lock out tag out*

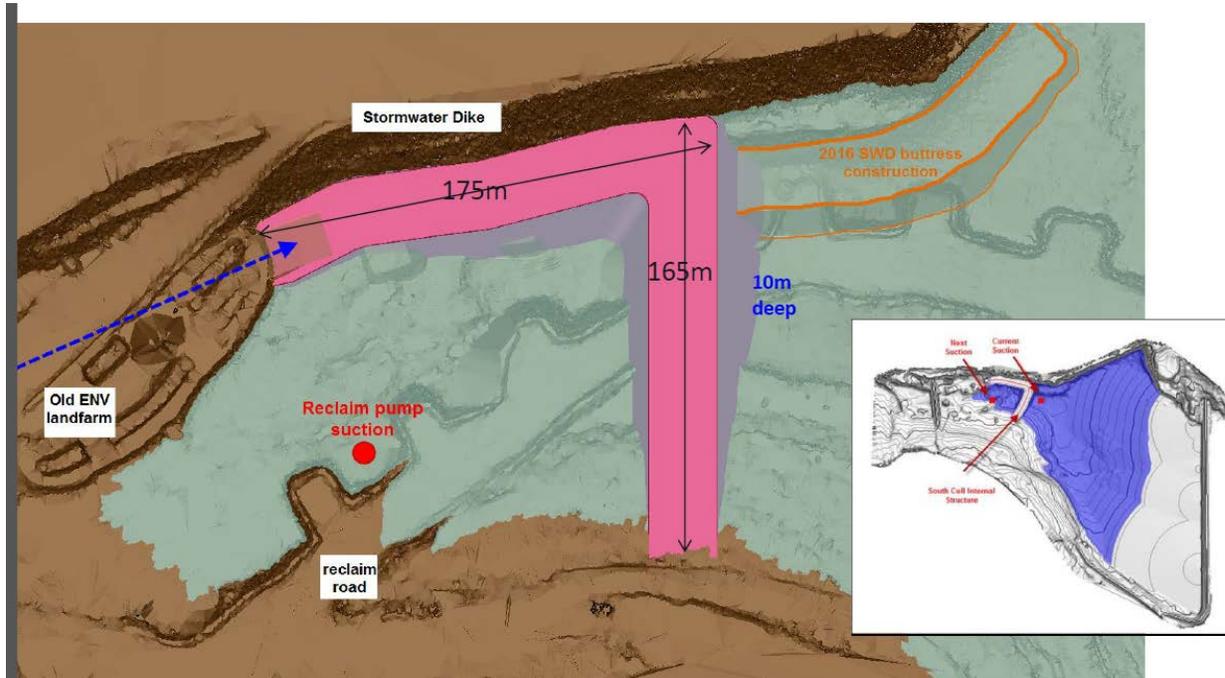
Team Member		Signature	
Supervisor		Signature	
H&S Coordinator		Signature	
H&S Superintendent		Signature	



# JOB HAZARD ANALYSIS WORKSHEET

## South Cell Internal Structure Construction

Mine General Foreman: Walter Standing/Pat Camarotto  
Geotechnical Coordinator : Frédéric L.Bolduc / Michel Groleau  
Engineering Superintendent: Pierre McMullen  
Surveyor: AEM





## JOB HAZARD ANALYSIS WORKSHEET

### South Cell Internal Structure Construction

Mine General Foreman: Walter Standing/Pat Camarotto

Geotechnical Coordinator : Frédéric L.Bolduc / Michel Groleau

Engineering Superintendent: Pierre McMullen

Surveyor: AEM





# AGNICO EAGLE

## JOB HAZARD ANALYSIS WORKSHEET

**South Cell Internal Structure Construction**  
 Mine General Foreman: Walter Standing/Pat Camarotto  
 Geotechnical Coordinator : Frédéric L. Bolduc / Michel Groleau  
 Engineering Superintendent: Pierre McMullen  
 Surveyor: AEM

Note: LOTO acronym for Lock out tag out

Team Member	Alexandre Lavoie	Signature	
Team Member	Marouen Ghabi	Signature	
Team Member	Faïc Côté	Signature	
Team Member	Kevin Champagne	Signature	
Team Member	Sason Gaudes	Signature	
Team Member	Wilk Szuruc	Signature	
Team Member	DENIS GOSSELIN	Signature	
Team Member	Frédéric C. Bolduc	Signature	
Team Member		Signature	
Team Member		Signature	
Supervisor		Signature	
H&S Coordinator	MARKUS UCHEHAGEN	Signature	
H&S Superintendent		Signature	