Appendix 18: 2022 Mock Scenario

Spill Report



# **MELIADINE GOLD MINE**

# Mock Spill Itivia 2022



2022-07-22

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#### **PURPOSE**

The annual mock spill is directed at operations where there is potential for either land-based or marine-based spills to occur. It is intended primarily for on-site first-responders who may or may not have any experience in managing spills of petroleum products. The mock spill attempts to demonstrate using verbal instruction and a practical effective exercise which can be taken to prevent spills and/or reduce the damage that results from a potential spill. The mock spill emphasizes the need to avoid situations that are a potential danger to human health and safety.

As a significant portion of yearly spills in Nunavut involve petroleum products, emphasis is placed on diesel as this is the product that will be transferred at Itivia.

The mock spill attempts to capture the scenarios likely encountered by front line staff. A total of 13 individuals participated, including 8 Agnico Eagle emergency response team members (ERT), 2 Agnico employees, 1 representative from the Rankin inlet fire department, 1 representative from Intertek and 1 consultant from Nunatta Environmental participated in the mock spill exercise on July 22<sup>nd</sup>, 2022. Rob Eno from Nunatta Environmental was brought in as a third party to help plan, facilitate and audit Agnico Eagles spill response equipment and provide advice on how to improve Meliadine's spill response capabilities. Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and Government of Nunavut (GN) conservation officers were also invited to participate but were not available to join.



## REVIEW OF THE EMERGENCY RESPONSE EQUIPMENT

**13:00** The Environment Department reviewed the contents of the sea cans with Intertek personnel.

**13:22** The Environmental Technician explained all the equipment available in the sea cans. The following items were reviewed with attendees:

- Floating Hydrocarbon Booms
- Hydrocarbon Rolls
- Hydrocarbon Pads
- Lined Quatrex Bags
- Empty 205 L TDG drums
- Spill Trays (drip trays)
- Personal Protective Equipment (including flotation devices)
- Oil Skimmer
- Containment Booms (reviewed how to properly assemble)
- Hand Tools
- Trophy boat/ 140hp engine and location of keys.
- ATV

**13:50** After reviewing spill response equipment, ship-to-shore document was reviewed with Intertek prior to transferring fuel (ship was delayed due to weather).

13:53 Environmental tech contacted Energy and Infrastructure (E&I) water management team to pump the secondary containment prior to the fuel transfer occurring (the secondary containment was ¼ full from the recent rainfall event).



#### **MOCK SPILL SCENARIO**

#### 1.1 Description of The Fictive Spill

On Friday, July 22<sup>nd</sup>, 2022, at 14:00, a breach/compromise at the connection between the ship-to-shore fuel line and the shore manifold occurred. An estimated 500 liters of P-50 is released and is making its way to the tidal flats.

#### 1.2 Response

**14:00** Intertek personnel calls the ship's captain and requested an emergency stop of fuel transfer. Intertek calls warehouse logistics team (Simon) to contact the Rankin Inlet dispatch and establish a "code 1". Simon initiates code 1 and contacts ERT on the radio for assistance. ERT indicates that it would take a minimum of 45 minutes to mobilize the Meliadine ERT to Melvin Bay.

14:05 Warehouse logistics employee reaches out to the environment department on the water management channel to request support; environment technician (Spencer) informed the warehouse logistics team he was already on his way to Itivia and would arrive in 10 minutes.

**14:08** Intertek reaches out to warehouse staff in the area and asks for support with deploying spill response equipment; the warehouse team arrives with a pick-up. Intertek asks the warehouse to drive to the emergency response sea cans to collect absorbent booms and penguin axes.

**14:14** The environment technician arrives to the scene with emergency spill response trailer and takes the lead for response.

**14:30** The initial spill response team which consisted of Intertek and two AEM employees a moved the marine barrier to the shoreline in case fuel reaches the water. It is observed that the marine barrier is heavy for 2 people to manipulate.

**14:45** 7 members of the Emergency Response Team (ERT) arrives, and the environment technician (also an ERT member) directs them to help support moving anchors and marine barrier to shore. He also directs 3 ERT members to get 3 penguin axes and additional absorbent booms.

14:47 Spencer asks the Environment Coordinator (Randy) to contact Sarliaq Holdings Ltd or Nuna Group of Companies to see if an excavator was available as the tidal flats are too hard to use penguin axes on (Environmental Coordinator contacts Nuna, and they confirmed an

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excavator was available immediately for rent/ which was not rented as this is a mock scenario).

- **14:50** Intertek and ERT deploy absorbent booms along the shore and use rags in small pockets of water (these would fill with diesel in a real scenario) from the Itivia laydown.
- **15:00** Rob (Nunatta environmental) explains 7 ft of lengths and 1 ft length of marine rope would work for tying anchors to marine barriers in Melvin Bay's tidal area. Rob also explains the importance of making an accordion formation with the marine barrier.
- **15:10** Rob explains the importance of knowing how to manage spill response equipment properly in the event a non-mock scenario occurs.
- **15:18** Mock scenario is concluded; overall, the participants' actions and response to the spill are deemed satisfactory, and it is determined that all group members have a sufficient understanding of the role's responsibilities of all spill responders.
- **15:25** Environment coordinator reviews the environmental ship-to-shore procedure with the group, along with an emergency contact list.

#### 1.3 Recommendations Following the Mock Spill Exercise

- Evaluate grouping spill response equipment to one area, including moving the seacans closer to allow for quicker spill response.
- Provide ERT personnel with formal spill response training, so they become familiar with spill response equipment.
- Consider deploying the containment boom before re-fueling event occurs to allow for quicker spill response.
- Consider holding a tabletop mock spill exercise with regulators included. A tabletop
  exercise will clarify roles and responsibilities and to identify the limits of responding
  to a spill. For example, if a spill occurred within the 31m water mark at Itivia, is Agnico
  Eagle allowed to use heavy equipment for support. The tabletop exercise should result
  in an improved spill response.
- Verify the interest of the coast guard auxiliary (CGA) to partnering up on spill response exercises.

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• Consider purchasing a rope skimmer rather than a disk skimmer.

#### 1.4 Intertek Questions

- Will the OPEP/OPPP always be inside the warehouse office at Itivia?
  - o Yes.
- Does a pre-discharge checklist need to be completed prior to each load?
  - o Yes.
- Is Intertek allowed to operate AEM's marine response boat?
  - No, Only an AEM staff employee with a pleasure craft licence is allowed to operate this boat.

#### 1.5 ERT Questions

- Is it possible to put a liner underneath the entirety of the fuel line?
  - As construction has already been completed; it could be very costly; we currently have secondary containment placed under each connection joint.
- Is it possible to bring Rob Eno back and conduct the classroom portion as well as the practical?
  - o This would need to be discussed with all supervisors/ERT coordinators.

#### 1.6 General Comments/Thoughts

- Anchors need to be ordered (some anchors have disappeared, Sarliaq had some made, but we should order additional anchors/ extras).
- Try and schedule the mock spill event so CIRNAC, Transport Canada (TC) and the GN
  can be present.
- Rob recommended that additional spill response equipment for the emergency response sea-cans at Itivia be ordered.

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## **APPENDIX A • FIGURES AND PHOTOS**

Figure 1: Mock spill signature list

Figure 2: Emergency contact list (AEM)

Photo 1: Mock spill scenario drill location (broken fuel pipe).

Photo 2 & 3: Connecting marine booms.

Photo 4: Making marine boom in an accordion shape.

Photo 5: Post-pounding marine boom stakes into the ground with sledgehammer.

Photo 6: Sea-can inventory.

Photo 7: Reviewing trophy boat use requirements.



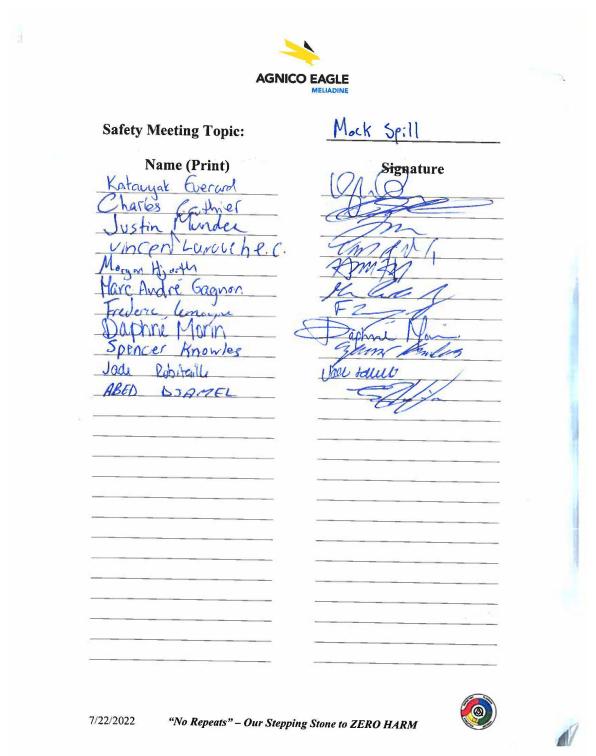


Figure 1: Mock spill signature list



Table 4 - Agnico Contacts

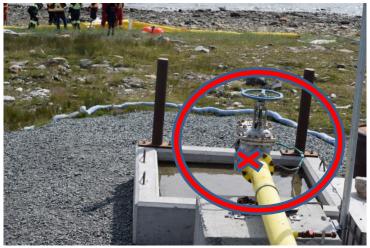
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Director Shared Services Nunavut Group	Pascal Lavoie	819.759.3700 ext. 4105822 Cell: 819.277.0045
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H&S Superintendent	Benoit Massicotte	819.759.3555 ext 4603968 Cell 819.762.2870
H&S General Supervisor	Charles-Andre Langevin	819.759.3555 ext 4603073 Cell: 819-239-8287
Emergency Measure Counselor	Dave Loder Darren Wilcox	819.759.3555 ext.4603113
Environmental Superintendent	Matt Gillman	819.759.3555 ext.4603175 Cell: 519.373.6249
Environmental General Supervisor	Sara Savoie	819.759.3555 ext. 4603212 Cell: 819.856.9349
Environmental Coordinator	Randy Schwandt/Brett Fairbairn	819.759.3555 ext.4603996
Environmental Department	Environmental Technicians	819.759.3555 ext.4603903 & 4603925
On-site Nurses		819.759.3555 ext.4603011



Figure 2: Emergency contact list (AEM)

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**Photo 1:** Mock spill scenario drill location (broken fuel pipe)





**Photo 2 & 3:** Connecting marine booms



**Photo 4:** Making marine boom in an accordion shape





**Photo 5:** Post-pounding marine boom stakes into the ground with sledgehammer



**Photo 6:** Sea-can inventory

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**Photo 7:** Reviewing trophy boat use requirements