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International Cyanide Management Institute (ICMI) 1400 I Street NW-Suite 550 Washington, D.C. 20005 United States of America

ICMC CERTIFICATION SUMMARY AUDIT REPORT

Agnico Eagle Mines Meadowbank Operations Nunavut, Canada

June 28, 2022 Project No.: 0601006



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June 28, 2022

ICMC Certification Summary Audit Report

Meadowbank

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1. INTRODUCTION

The "International Cyanide Management Code For The Manufacture, Transport, And Use Of Cyanide In The Production Of Gold" (the Code) was developed by a multi-stakeholder Steering Committee under the guidance of the United Nations Environmental Program (UNEP) and the then, International Council on Metals and the Environment.

The Code is a voluntary industry program for gold mining companies, and companies involved with the production and transport of cyanide to gold mining companies; it focuses exclusively on the safe management of cyanide. Companies that adopt the Code must have their operations, which manufacture cyanide, transport cyanide or use cyanide to recover gold, audited by an independent third party to determine the status of the Code's implementation. Those operations that meet the Code's requirements can be certified and be able to use a unique trademark symbol, which identifies the company as a certified operation. Audit results are made public to inform stakeholders of the status of cyanide management practices at the certified operation.

The objective of the Code is to improve the management of cyanide used in gold mining and assist in the protection of human health and the reduction of environmental impacts (refer to www.cyanidecode.org). The Code is managed by the International Cyanide Management Institute (ICMI).

This summary report has been prepared to meet the requirements and intentions of the International Cyanide Management Institute (ICMI) to demonstrate that following named project has met the obligations in implementing the International Cyanide Management Code (Code).

Name of Project:	Meadowbank Mine
Project Owner / Operator:	Agnico Eagle Mines
Name of Responsible Manager:	Alexandre Cauchon, General Mine Manager
Address and Contact Information:	AEM – Meadowbank Mines Suite 540 - Baker Lake Nunavut, Canada X0C 0A0
Audit Company:	Environmental Resources Management (ERM)
Audit Team: Lead Auditor:	Michelle Gillen, EP (CEA) Email: michelle.gillen@erm.com
Gold Mining Technical Expert Auditor:	Judy Fedorowick Email: judy.fedorowick@erm.com
Date of Audit:	This recertification audit was conducted August 30 – September 3, 2021.

2. ATTESTION

2.1.1 Auditors Findings

	\boxtimes	in full compliance with	
Meadowbank Mine is		in substantial compliance with	International Cyanide Management Code
		not in compliance with	

This operation has experienced compliance issues during the previous three-year audit cycle, which are discussed in this report under Standard(s) of Practice 4.2 and 6.2. However, corrective actions have been implemented to address them as follows:

Standard of Practice 4.2: Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings

 A new ore body was introduced during the verification period, which has increased the amount of cyanide used and the CN Weak Acid Dissociable (WAD) concentrations discharged in the tailings beyond the original design of the Mill. Meadowbank was in the process of design updates to the Mill and assessing the cyanide destruct unit at the time of the verification to manage these changes. These were "in-progress" at the time of the verification.

Standard of Practice 6.2: Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

During the verification period, cyanide related incidents occurred for which there was no
investigation or documentation to evaluate effectiveness of health and safety measures.
Recognizing this challenge, Meadowbank has developed and approved a new Cyanide
Investigation procedure (effective September 16, 2021) which provides clarity on what incidents
(i.e. evacuation alarms > 10 ppm, human exposure that requires Emergency Response Team
(ERT) intervention, offsite or impacts to surface water, multiple wildlife events and transport
incidents) need to be recorded and have a full investigation to improve overall cyanide
management.

Auditor Attestation

I attest that I meet the criteria for knowledge, experience and conflict of interest for a Cyanide Code Certification Audit Lead Auditor, as established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Auditors.

I attest that this Summary Audit Report accurately describes the findings of the certification audit. I further attest that the certification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Mining Operations Verification Protocol and using standard and accepted practices for health, safety and environmental audits.

Meadowbank

Name of Facility

Signature of Lead Auditor

June 28, 2022

Date

3. AUDITOR INFORMATION

Audit Company: ERM Canada Inc.

Lead Auditor: Michelle Gillen

Lead Auditor Email: <u>michelle.gillen@erm.com</u>

Names and Signatures of Other Auditors:

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Judy Fedorowick

Name (Print/Type)

Auditor 2:

Michelle Gillen

Name (Print/Type)

Judy feolowide

Signature

W/ichell Silen

Signature

4. BACKGROUND ON OPERATIONS

The Meadowbank mine is in the Kivalliq region of Nunavut, about 300 kilometres west of Hudson Bay and 110 kilometres by road north of Baker Lake, the nearest community. Agnico- Eagle Mining Limited, Meadowbank (AEM) conducts surface mining from a series of three pits all within 7 kilometres (MBK pits no longer operational – only the pits at Amaruq) of the processing plant. Mine commissioning and first gold production began in early 2010 and life of mine was projected to extend into 2019. Meadowbank produced 352,500 ounces of gold in 2017 and is forecast to produce 220,000 ounces gold in 2018. With the expected start of operations of the Amaruq mine in third quarter 2019, the life of the Meadowbank operation is predicted to extend for another seven years.

The 11,000 t/day gold processing plant at Meadowbank uses conventional technology adjusted to the Arctic climate. Ore is crushed and milled to 80% passing 60µm to 80µm. The ball mill operates in a closed circuit with cyclones. About 30% of the cyclone underflow reports via a gravity concentrator to an intensive cyanidation unit (ICU) in which the gravity recovered gold is intensively leached in a concentrated cyanide solution. Gold in pregnant solution from this process is recovered by electrowinning and smelted into doré bars. The cyclone overflow is thickened prior to flowing into a pre-aeration and leaching circuit consisting of three pre- aeration tanks and six cyanide leach tanks. The leached slurry is directed to a carbon-in-pulp circuit of seven tanks in series. The recovered gold in solution is stripped by electrowinning, followed by smelting and the production of doré bars. Meadowbank is currently under going a project to upgrade to 12,000 tonnes per day (tpd) through additional grinding and increased throughput. A bottleneck study has been completed to understand what upgrades are needed and an initial design for a HPGR (high pressure grinding rolls) modification has been completed.

The Carbon-in-Pulp (CIP) tailings are thickened to recover cyanide from the process solution, and then treated using the standard SO2/air process or sodium metabisulphite to destroy residual cyanide. The tailings were previously pumped to the permanent tailings storage facility (TSF), which is designed for zero discharge. The TSF consists of a North Cell and a South Cell. Tailings were deposited in the North Cell until late 2014 when construction of the Stage 3 of the Central Dike was completed. Deposition then switched to the South Cell.

The Central Dike and Saddle Dams 3, 4 and 5 that make up the containment dams for the South Cell were raised in three stages between 2015 and 2017 to their current elevation of 145 m (metres above sea level). These structures are designed to be raised to a maximum elevation of 150 m.

In 2019 Meadowbank began using their approved in-pit tailings disposal facility and ceased discharging tailings to the north and south cell of the TSF in 2020. Water management activities still occur in the TSF whereby water is pumped to the in-pit tailings disposal area as needed to maintain freeboard requirements in the TSF. A new tailings line was developed to transport tailings to the Goose Pit and Pit A as well as a reclaim water line back to the Mill. An in-pit tailings deposition plan has been developed by an engineer that includes depositing into either the Goose Pit or Pit A. The new tailings operational plans and water management plans have been incorporated into Meadowbank's overall tailing management program.

The general site area consists of low, rolling hills with numerous lakes. The topography in the immediate vicinity is generally flat, with relief on the order of 10 m to 12 m near the main deposit areas, and as high as 60 m locally. Elevations vary from about 133 m along the lake shorelines to about 200 m. The mine location is in the tundra region of the central sub-Arctic and is considered to have an arid arctic climate with temperatures generally ranging from +5°C to -40°C in the winter (from October to May) and from - 5°C to +25°C in the summer (from June to September). The area is sparsely populated with the Hamlet of Baker Lake located approximately 70 km from the mine, and with a population of about 1,100, being the nearest community. AEM depends on the annual, warm-weather sealift from the Port of Bécancour, in Montreal, Quebec for transportation of bulk supplies and heavy equipment.

The shipping route is by Ocean vessel to Chesterfield Inlet and the tug barge to Baker Lake. An allweather road links Baker Lake to the mine site. An on-site airstrip is used for shipping food and goods and for transporting employees, who work on a fly-in, fly-out basis.



Figure 1. Regional Map





Figure 3. Mill Layout



5. GOLD MINING VERIFICATION PROTOCOL

5.1 Principle 1 – Production and Purchase

Encourage responsible cyanide manufacturing by purchasing from manufacturers that operate in a safe and environmentally protective manner.

Standard of Practice 1.1: Purchase cyanide from certified manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

FINDING: The operation in full compliance with Standard of Practice 1.1	BASIS FOR FINDING: Mining Operation Meadowbank is in full compliance with Standard of Practice 1.1, requiring the operation purchase cyanide from certified manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide and to prevent releases of cyanide to the environment.
	• The Contract requires that the Seller (The Chemours Canada Company FC, LLC or Chemours) comply with the Cyanide Code and all Certification Requirements. Section 13(b) of Supply Contract specifies that the producer and transporters must be certified before the first delivery.
	The contract was extended in February 2021 to 2024.
	• AEM purchases cyanide from the Chemours's production plant in Memphis, Tennessee. (Chemours was recertified November 15, 2019).

5.2 **Principle 2 – Transportation**

Protect Communities and the Environment during Cyanide Transport

Standard of Practice 2.1: Require that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training and emergency response.

FINDING: The operation is in full compliance with Standard of Practice 2.1	BASIS FOR FINDING: Mining Operation Meadowbank is in full compliance with Standard of Practice 2.1, requiring that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training and emergency		
	response.		
	 There were no interruptions to the supply chain in the past three years of operation. 		
	 The Chemours supply chains used for transport were either re-certified or in the process of being recertified for shipments from their manufacturing facility in Memphis TN to the Port of Bécancour. 		
	 The AEM supply chain from the Port of Bécancour to the mine site is currently undergoing recertification at the same time as the mine site. 		

5.3 Principle 3 – Handling and Storage

Protect Workers and the Environment during Cyanide Handling and Storage

Standard of Practice 3.1: Design and construct unloading, storage and mixing facilities consistent with sound accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

FINDING: The operation is in full compliance with Standard of Practice 3.1.	BASIS FOR FINDING: The operation is in full compliance with Standard of Practice 3.1; design and construct unloading, storage and mixing facilities consistent with sound accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.
	• The cyanide facilities design was reviewed in 2014 and following that review the containment basins were repaired and the capacities of the basins were expanded. Documentation that the basins continue to be adequately designed have been maintained on site.
	• Cyanide unloading and mixing process occurs only inside the mill, which is restricted to authorized mill employees only and located away from surface waters, and that cyanide is stored with adequate ventilation and measures to minimize the potential for contact of solid cyanide with water
	• Systems in place to prevent overfilling of cyanide storage tanks, and are the systems tested and maintained on a routine basis.
	Cyanide mixing and storage tanks located on a concrete
	• The cyanide mixing and storage tanks are located inside the mill building in a fully bermed concrete containment basin.
	Cyanide is stored in a secure manner and protected from incompatibles or water.

Standard of Practice 3.2: Operate unloading storage and mixing facilities using inspections, preventative maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

ITEM	EVIDENCE OBSERVED	OBSERVATIONS	
FINDING: The operation is in full compliance, with Standard of Practice 3.2.	BASIS FOR FINDING: The operation is in full compliance with Standard of Practice 3.2; operate unloading storage and mixing facilities using inspections, preventative maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.		
	 Procedures to prevent exposures and releases durin cover the operation and maintenance of all hoses, vathat will prevent the rupturing or puncturing of the constrained racking has been implemented to limit the here. 	g cyanide unloading and mixing have been developed to lives and couplings for unloading and mixing solid, and ntainers; eight of stacking of cyanide containers.	

Standard of Practice 3.2: Operate unloading storage and mixing facilities using inspections, preventative maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

ITEM	EVIDENCE OBSERVED	OBSERVATIONS	
	 Procedures exist for safely disposing of empty cyanide containers that prevent empty cyanide containers from being used for any purpose other than holding cyanide, by marking them and securely storing them until they can be burnt. The sea cans that the cyanide containers were stored in are then cleaned and sent back for re-use, refurbishment or recycling based on their condition. 		
	 Meadowbank has also developed and procedures to unloading and mixing activities such as checking ver routine maintenance on cyanide mixing equipment, a see spills of high strength solution as well as procedures 	Meadowbank has also developed and procedures to prevent exposures and releases during cyanide unloading and mixing activities such as checking ventilation and emergency response equipment, performing outine maintenance on cyanide mixing equipment, adding colourant to the solution to increase the ability to see spills of high strength solution as well as procedures to clean up any spills of materials.	

5.4 **Principle 4 – Operations**

Manage Cyanide Process Solutions and Waste Streams to Protect Human Health and the Environment

Standard of Practice 4.1: Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventative maintenance procedures.

ITEM	EVIDENCE OBSERVED	OBSERVATIONS
FINDING:	BASIS FOR FINDING:	
The operation is in full compliance with Standard of Practice 4.1.	 The operation is in full compliance with Standard of Pract designed to protect human health and the environment in preventative maintenance procedures. Meadowbank has developed operating plans and promanagement facilities inclusive of the Mill operations objectives and targets that are protective of human high planning. Objectives and targets were observed to be Evidence was available to indicate that there are insplacilities. A management of change program is in plat (MOCs) was available for a variety of changes include monitoring equipment and operations. Meadowbank has contingency procedures for non-st for cyanide exposures and release. The operation has implemented a management of chasafety personnel review and sign-off on proposed program is conducted by the geotechnical technician, water engineer. Meadowbank has developed inspection programs for documented on forms and includes inspection items. central dike, stormwater dike, tailings distribution sys infrastructure. They identify the date of inspection an established frequency that is set by the Engineer of F are functioning as designed. Although there are chall CN WAD concentrations in the tails discharged to the receiving water body is still protective of the environment of the subject Matter Expert (SME) had recently been engawhat upgrades or changes are required to the unit to designed (SME report not available at time of verification). 	ice 4.1; implement management and operating systems cluding contingency planning and inspection and becedures that are representative of the cyanide and the tailings facilities. These procedures include ealth and the environment and include contingency be embedded in operating plans and procedures. bection and maintenance systems for the cyanide ace and evidence of completed Management of Change ing changes to infrastructure (cyanide lines and pumps), andard operating situations that may present a potential mange procedure which ensures that environmental and becess changes and modifications, prior to the Manual (OMS) outline the routine inspections that and geotechnical co-ordinator, or water and tailings r the cyanide facilities and these inspections are Structures included for inspection include the dams, tem, the east and west diversion ditches and pumping d name of the inspector. These inspections occur on an Records and considered sufficient to assure the facilities enges with a new ore body that has resulted in higher e TSF (occasionally > 50 ppm), sampling results from the nent (below 10 ppm). At the time of the verification onal milling capacity to manage the ore. In addition, a aged to review the cyanide destruct unit to determine ensure it can manage higher input than originally ation). The new design and engagement of the SME

Standard of Practice 4.1: Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventative maintenance procedures.

ITEM	EVIDENCE OBSERVED	OBSERVATIONS
	 indicates that Meadowbank has recognized that desinew ore and increase throughput while managing cyst Backup power has been provided to the mine site to prevent a spill in the event of a power outage. A prevent gency power was observed being completed duite 	gn changes to the Mill will be required to manage the anide addition ensure that cyanide facilities can be safely operated to ventative maintenance program for the back-up ring the verification.

Standard of Practice 4.2: Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings

FINDING:	BASIS FOR FINDING:
The operation is in full compliance with Standard of Practice 4.2.	The operation is in full compliance with Standard of Practice 4.2; introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.
	 Meadowbank has formalized processes for assessing metallurgy and determining actions to evaluate the cyanide use in the Mill to optimize use and limit overuse of cyanide while maintaining optimal recovery. There have been challenges due to a new ore with increased variability; however documentation was available to demonstrate that actions are recommended by the metallurgical department to respond to this variability. Control room operators respond to the recommendations of the metallurgical department based on communication that is received daily through emails and communication boards. Titrations are conducted every four hours to provide adequate information on which to base decisions. The Mill control plans documents the processes used for ensuring the correct operating conditions such as reagent use, pH, and cyanide addition.

Standard of Practice 4.3: Im	plement a comp	rehensive water	management p	program to	protect aq	ainst unintentional rel	leases.

FINDING:	BASIS FOR FINDING:
The operation is in full compliance with Standard of Practice 4.3.	The operation is in full compliance with Standard of Practice 4.3; implement a comprehensive water management program to protect against unintentional releases.
	• Meadowbank has developed a comprehensive and probabilistic water balance (Goldsim) which is updated throughout the year with data that is collected at metering and weather stations. A full review of the Water Balance is conducted annually and updated as required by the operating licence. The Water Balance account for recent changes including in-pit tailings deposition as opposed to the use of the TSF.

Standard of Practice 4.3: Implement a comprehensive water management program to protect against unintentional releases.		
	The Water Balance includes rates of tailings deposits, design storm duration and return to prevent overtopping, precipitation data, effects of freezing on run off, seepage, etc. The recurrence of the storm event is 1/3 between 1000 year and Probable Maximum Flood (PMF).	

Standard of Practice 4.4: Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

FINDING: The operation is in full compliance with Standard of Practice 4.4.	BASIS FOR FINDING: The operation is in full compliance with Standard of Practice 4.4; implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.
	 Meadowbank has consistently maintained WAD cyanide levels within the TSF below 50 mg/L thereby protecting birds, other wildlife and livestock from adverse effects of cyanide process solutions. Samples are collected monthly in the reclaim ponds at the TSF and have consistently been below 1.5 mg/L in the verification period. Meadowbank has a wildlife-siting program that includes monthly wildlife reports. In addition, monthly and weekly inspections of the TSF would be a mechanism for reporting any mortalities. Meadowbank reported no animal or bird mortality associated with the TSF or a cyanide management facility in the verification period.
	 The CN WAD concentration in the discharge from the destruction unit has seen levels exceeding 50 mg/L since January 2021 as Meadowbank is managing a new ore body. Meadowbank has engaged a cyanide destruction SME regarding optimizing the cyanide destruction unit and was in the process of completing project approvals for an upgrade to the Mill (additional grinding circuit) to manage the new ore and the reagents needed for gold recovery while managing water discharge quality.
	• The water from the destruction unit is no longer sent to the tailings ponds, and is sent for in-pit disposal, which is not accessible to wildlife given the highwalls of the pit. Additional precautions to prevent wildlife from entering the in-pit tailings area, such as scare cartridges and screamers have also been used. AEM has indicated that annually, there is little to no observations of any birds within the in-pit tailings area. CN WAD cyanide results from the in-pit sampling locations have not exceeded 1.18 mg/L of WAD cyanide between 2019 and 2020.

Standard of Practice 4.5: Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

FINDING:

BASIS FOR FINDING:

Standard of Practice 4.5: Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

The operation is in full compliance with Standard of Practice 4.5.	The operation is in full compliance with Standard of Practice 4.5; implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.
	• Meadowbank has no direct discharge to surface water from a cyanide related facility; however, monitoring is still conducted in surrounding lakes. All sampling results in surface waters have shown that free cyanide has not exceeded 0.022 mg/L during the verification period remaining protective of fish and wildlife. There have been historical indirect discharges through seepage that were identified in 2013 that have since been intercepted or remediated. Meadowbank continues a program of surface and groundwater sampling around these historical sources. During the verification period all sampling results were shown not to exceed 0.022 mg/L free cyanide remaining protective of fish and wildlife.

Standard of Practice 4.6: Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

ITEM	EVIDENCE OBSERVED	OBSERVATIONS	
FINDING:	BASIS FOR FINDING:		
The operation is in full compliance with Standard of Practice 4.6.	The operation is in full compliance with Standard of Practice 4.6; implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.		
	 Meadowbank protects the beneficial uses of groundw water and groundwater monitoring to ensure zero dis 	vater through a combination of containment of process charge is maintained.	
	 Meadowbank is located in area where there is no deswater licence groundwater monitoring is undertaken. cyanide in monitoring wells surrounding site activities that there were no results above a voluntary water que cyanide impacts to groundwater activities from reclaim 	signated beneficial uses of water; however as part of the The 2020 sampling program included sampling for total b. The 2020 groundwater monitoring program indicated uality concentration and that there was no evidence of m water.	

Standard of Practice 4.7: Provide spil	I prevention or containment measures for process tanks and pipelines.

FINDING:	BASIS FOR FINDING:
The operation is in full compliance with Standard of Practice 4.7.	The operation is in full compliance with Standard of Practice 4.7; provide spill prevention or containment measures for process tanks and pipelines.
	 Spill prevention and containment measures have been installed at the Meadowbank Mine. All tanks and process lines for cyanide are within containment facilities that were confirmed to contain 110% capacity in

Standard of Practice 4.7: Provide spil	I prevention or containment measures for process tanks and pipelines.
	studies completed prior to the 2018 verification and there have been no changes to containment since that time. Any solutions or precipitation in the secondary containment areas are pumped back into the process plant with no releases to the environment. A new cyanide line and pump was installed in the verification period and twins the existing infrastructure that is provided with containment.
	• Both the reclaim and tailing deposition pipelines are part of the field operators daily rounds. Forms of inspections are completed and uploaded into the Mills software system. The tailings delivery system includes Low flow alarm at 350 m3/h and Low Low flow alarm at 0 m3/h. High pressure alarm set at 1200 kPa in tailings line.
	• The tailings line cross mine disturbed areas are not necessarily in containment. In other areas where the tailings line exist beside a road the line is placed in a trench to contain potentially released material. Both the reclaim and tailing deposition pipelines are part of the field operators daily rounds. Forms of inspections are completed and uploaded into the Mills software system.

Standard of Practice 4.8: Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

FINDING:	BASIS FOR FINDING:
The operation is in full compliance with Standard of Practice 4.8.	The operation is in full compliance with Standard of Practice 4.8; implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.
	 The Cyanide Code verification report prior to 2018 were reviewed to confirm that original QA/QC documentation, or statements of equivalency of QA/QC documentation was achieved. Quality control and quality assurance programs since 2018 have included the use of professional engineers to design, install and construct upgrades that have included additional cyanide lines and pumps and modifications to in-pit tailings disposal. Documentation for these changes are retained within Meadowbank's electronic filing system. MOC for these changes were available and reviewed to confirm that the proper QAQC documentation has been retained.
	• During the verification period Meadowbank changed from tailings disposal in the ponds located in the tailings storage facility, to in-pit disposal. The modification was designed by a qualified engineering company and approved by the regulatory authority. The changes are documented in the Meadowbank Mine Waste Rock and Tailings Management Plan, Version 11.

Standard of Practice 4.9: Implement monitoring programs to evaluate the effects of cyanide use on wildlife, and surface and groundwater quality.

FINDING: The operation is in full compliance with Standard of Practice 4.9.	BASIS FOR FINDING: The operation is in full compliance with Standard of Practice 4.9; implement monitoring programs to evaluate the effects of cyanide use on wildlife, and surface and groundwater quality.
	 Meadowbank has developed written procedures for monitoring activities inclusive of surface water and groundwater that have been developed to meet environmental licensing requirements. The sampling procedures are detailed and outline collection, preservation, shipping and QA/QC requirements. These procedures have been developed over the years by the in-house environmental team which has consisted of engineers and certified environmental technicians.
	 Field books are used to record information during sampling which could include identifying any unusual conditions which could affect sampling.
	 There was evidence that sampling is conducted according to these procedures with analysis conducted by an accredited laboratory. A QA/QC program has been developed that includes sample collection, analysis, data management and data verification. The QA/QC program is reviewed on an annual basis and updated if required.
	Given that sampling is conducting according to Water Licence requirements and is under the scrutiny of third parties (regulatory agency and COI) It is the auditor's professional opinion that the operation conducts surface water and groundwater monitoring at frequencies adequate to characterize the medium being monitored and to identify changes in a timely manner.

5.5 **Principle 5 – Decommissioning**

Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities

Standard of Practice 5.1: Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock, and the environment.

FINDING:	BASIS FOR FINDING:
The operation is in full compliance, with Standard of Practice 5.1.	The operation is in full compliance with Standard of Practice 5.1; plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock and the environment.
	• AEM has developed a cyanide management decommissioning overview (CMDO) that includes the steps required to decommission cyanide facilities including health and safety precautions, environmental considerations, cyanide stock reduction, disposal of unused stock, decontamination of piping and equipment, contaminated site remediation, waste disposal and post closure monitoring, if required. The CMDO also

Standard of Practice 5.1: Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock, and the environment.

includes a cost estimate and schedule specifically related to cyanide facilities that is integrated into the overall Interim closure and reclamation plan. The CMDO was most recently updated in September 2021 to include a conceptual closure schedule aligned with the Life of Mine plan.
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Standard of Practice 5.2: Establish a financial assurance mechanism capable of fully funding cyanide related decommissioning activities.

FINDING:	BASIS FOR FINDING:
The operation is in full compliance with Standard of Practice 5.2.	The operation is in full compliance with Standard of Practice 5.2; establish a financial assurance mechanism capable of fully funding cyanide related decommissioning activities.
	• AEM maintains an overall cost estimate for the closure and reclamation of the mine inclusive of cyanide related facilities. Cost have also been estimated for cyanide related closure activities (mill decommissioning, tank cleaning, tailings management facilities and safety related considerations) and are part of the overall mine closure cost estimate. The closure cost estimate was most recently updated in 2019 in accordance with local regulatory guidance. Letter(s) of credit for the full closure cost estimate were established at the same time (2019).
	• There is a Cyanide Decommissioning Overview that outlines more detailed decommissioning practices for cyanide related facilities that from part of the overall closure cost estimate. The Overview includes both direct and indirect costs for labour, contracts, and materials. The cyanide management decommissioning overview was not updated between 2014 and 2021; however, it would have been a component of the overall update to the closure cost estimate at a higher level.

5.6 Principle 6 – Worker Safety

Protect Workers' Health and Safety from Exposure to Cyanide

Standard of Practice 6.1: Identify potential cyanide exposure scenarios and take measures as necessary to eliminated, reduce and control them.

FINDING: The operation is in full compliance with Standard of Practice 6.1.	BASIS FOR FINDING: The site is in Full Compliance with Standard of Practice 6.1 requiring that the site identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.
	 AEM has developed safe work procedures for work where cyanide exposure can occur and has considered various scenarios that could be encountered by a variety of workers including including decontaminating equipment prior to maintenance, Mill Operators, Maintenance Staff and general workers. The procedures follow a standard template where exposures are identified, and controls listed including the use of monitoring equipment and PPE. Pre-work inspections are conducted and recorded. Worker input is solicited through a variety of means including formal joint health and safety committee meetings, at daily-line ups and through collaborative risk assessments.

Standard of Practice 6.2: Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

FINDING: The operation is in full compliance with Standard of Practice 6.2.	BASIS FOR FINDING: Mining Operation Meadowbank is in full compliance with Standard of Practice 6.2 requiring that the site operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.
	• Meadowbank has set safe operating limits when using cyanide to limit the potential generation of HCN and have embedded these requirements into control plans that were well known by Operators. Although the Amaruq ore has been challenging in terms geological variability requiring increased WAD cyanide in the system, AEM has implemented the safe guards to protect workers from increased cyanide usage. There are 19 stationary alarms positioned where cyanide risk is greatest that are maintained and calibrated. In addition, GasPro badges are used for specific higher risk cyanide related work. Alarms are protective of workers safety respecting both 4.7 and 10 ppm limits. These units are calibrated through the manufacturers docking stations and records logged in an Excel file.
	• Emergency showers, eye wash stations, and diphoterine dispensers were observed in several locations throughout the Mill where cyanide is used. Fire extinguishers are the dry chemical type (e.g. sodium bicarbonate)
	• AEM recently updated their signage within the Mill to identify where cyanide is present and may pose a danger, including flow direction on distribution piping. Piping has now been clearly labelled with dyed cyanide

Standard of Practice 6.2: Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

in use for identification. Further worker protection includes eye wash stations and showers that are alarmed in the Control Room when activated. Records indicate that these are inspected and maintained throughout the verification period. AEM also initiated a work order to label their tailings lines to indicate the contents and flow direction once the snow melts.
 Safety Data Sheets, first aid procedures or other informational materials on cyanide safety are written in the English, the language of the workforce and available in areas where cyanide is managed.
• Based on records in the verification period 2018-2021, Meadowbank has experienced a number of cyanide related events including activation of emergency alarms, releases of cyanide from transfer lines, and potential worker exposure. These events have been recorded in the incident management system, however, investigation of these events have not always occurred or documentation maintained to support event description such that they could now be reviewed to establish learnings and corrective actions. To respond to the challenge, Meadowbank has developed and approved a new Cyanide Investigation procedure, (effective September 16 2021), which provides clarity on what incidents (I.e. evacuation alarms > 10 ppm, human exposure that requires ERT intervention, offsite or impacts to surface water, multiple wildlife events and transport incidents) need to be recorded and have a full investigation to improve overall cyanide management.

Standard of Practice 6.3: Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation is in full compliance with Standard of Practice 6.3.

BASIS FOR FINDING:

Mining Operation Meadowbank is in Full Compliance with Standard of Practice 6.3 that requires that the site develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

- Meadowbank has developed emergency response plans and first aid procedures to respond to cyanide related exposures. This includes first aid equipment and the availability of medical aid through oxygen therapy, cyanokits, AEDs and defibrillators. AEDs are available in the mill in the three locations with oxygen and other first aid supplies located in the nursing station. The oxygen therapy includes masks and related equipment to provide oxygen to those that might need it, including masks to resuscitate a patient who is not breathing. On-site capability to respond to an emergency include two Nunavut registered nurses who would assist in stabilizing and transporting a patient to an off-site hospital under the direction of the Nunavut doctor. To medivac an employee in Nunavut, the patient is automatically taken in charge by the government of Nunavut's Health Services.
- First aid equipment is regularly inspected and observed to be in good condition during the site tour.
- A medical directive has been signed between Meadowbank Mine and the contracted physician, Dr. Marc Lee. This legalizes the transfer of the patient from Meadowbank mine to the government of Nunavut.

5.7 Principle 7 – Emergency Response

Protect Communities and the Environment through the Development of Emergency Response Strategies and Capabilities

Standard of Practice 7.1: Prepare detailed	emergency response plans for potential cyanide releases.
FINDING:	BASIS FOR FINDING:
The operation is in full compliance with Standard of Practice 7.1.	Mining Operation Meadowbank is in Full Compliance with Standard of Practice 7.1 that requires that the site prepare detailed emergency response plans for potential cyanide releases.
	 Meadowbank has developed emergency response plans to address a number of cyanide failure scenarios including response to hydrogen cyanide alarms and mill evacuation, transportation accidents, incidents related to tailings releases, fires, process upsets including shutting down the mill due to power outages, etc.
	 The emergency response for transportation accidents includes consideration of the route taken (offloading at port, transport along all-weather access road) and response to a spill should it occur during transport.
	 Meadowbank has also developed procedures for treating victims who have accidentally been exposed to cyanide and transporting them to hospital.

Standard of Practice 7.2: Involve site	e personnel and stakeholders in the planning process.
FINDING:	BASIS FOR FINDING:
The operation is in full compliance, with Standard of Practice 7.2.	Mining Operation Meadowbank is in Full Compliance with Standard of Practice 7.2 which requires the involvement of site personnel and stakeholders in the planning process.
	 The Meadowbank Emergency Response Plan (ERP) was originally developed to comply with applicable Nunavut's Mine Act obligations and requirements from the Nunavut Water Board Type A Water licence and developed in consultation with local stakeholders and mine departments.
	 The ERP is reviewed on a regular basis with input from the department heads and in consultation with the Joint Occupational Health & Safety Committee (JOHSC).
	 There are no local stakeholders who would be involved in responding to a cyanide emergency, however, the community is kept informed of cyanide risks and emergency response plans through the Community Relations Lead.

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Standard of Practice 7.2: Involve site	per	sonnel and stakeholders in the planning process.
	•	The only external entities having emergency response roles, is the medical treatment when a victim would be transferred to a larger medical facility. This include the Nunavut Health Services and Keewatin Air (contracted air line for Nunavut government) as well as the Winnipeg Hospital in Manitoba province to organize medivac.

Standard of Practice 7.3: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

FINDING:

The operation is in full compliance,

with Standard of Practice 7.3.

BASIS FOR FINDING:

Mining Operation Meadowbank is in full compliance with Standard of Practice 7.3 that requires that the site designate appropriate personnel and commit necessary equipment and resources for emergency response.

- The Meadowbank ERT, Spill and Contingency Plan together with the Tailings Operations, Maintenance and Surveillance Manual (OMS), define the roles and responsibilities for responding to cyanide related emergencies and the location and maintenance of required emergency response equipment.
- The plan also links to the full ERT team, of which a current list of on site ERT members is posted at site. An
 Emergency Response Team has been developed that includes employees who are trained in first aid, mine
 rescue and the Emergency Response Plan.
- The call out procedure (i.e., Code 1 Code 1 Code 1) is specified in the ERP, the procedure is also
- communicated during online induction training (E-learning) and during site practical H&S induction.
- Outside agencies do not have a role in responding to cyanide related emergencies on site, however, the
 plans do include contact information for these external agencies so that reporting of cyanide related incidents
 to regulators and key stakeholders can occur.

- Standard of Fractice 7.4. Develop procedures for internal and external emergency notification and repor	ctice 7.4: Develop procedures for internal and external emergency notification and re	eporting
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FINDING:	BASIS FOR FINDING:
The operation is in full compliance with Standard of Practice 7.4.	Mining Operation Meadowbank is in Full Compliance with Standard of Practice 7.4 that requires that the site develop procedures for internal and external emergency notification and reporting.
	 The Meadowbank Emergency Response Plan and Spill Contingency plans include requirements for notifying management, regulatory agencies as well as potentially affected communities of a cyanide related incident.
	 The Meadowbank ERP and Spill and Contingency Plans both include contactor information for notifying key community stakeholders including the Kivalliq Inuit Association and Baker Lake Fire and Emergency Services, Baker Lake Airport and Radio Stations, etc.
	 The operation has recently develop a procedure for investigating cyanide incidents and reporting these to the ICMI as required.

Standard of Practice 7.5: Incorporate remediation measures and monitoring elements into response plans and account for the additional hazards of using cyanide treatment chemicals.

FINDING:

The operation is in full compliance, with Standard of Practice 7.5.

BASIS FOR FINDING:

Mining Operation Meadowbank is in Full Compliance with Standard of Practice 7.5 that requires that the site incorporate remediation measures and monitoring elements into response plans that account for the additional hazards of using cyanide treatment chemicals.
The spill contingency plan includes guidance on clean-up of spills to various media types (land, water) and guidance on cleaning up spills of cyanide.
The plan prohibits the use of adding any chemicals to treat cyanide that has been released to or near surface water.
The spill contingency and sampling plan include guidance on collecting samples for contaminants based on different spill scenarios (e.g. spill to water, spill to land). It also covers how recovered material will be

disposed of.

Standard of Practice 7.6: Periodical	y evaluate response proce	dures and capabilities and	revise them as needed.
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FINDING:	BASIS FOR FINDING:
The operation is in full compliance, with Standard of Practice 7.6.	Mining Operation Meadowbank is in Full Compliance with Standard of Practice 7.6, which requires that the site periodically evaluate response procedures and capabilities and revise them as needed.
	 Meadowbank has regularly reviewed and kept their Emergency Response Plan (ERP) up to date based on staffing changes, responses to real emergencies.
	 The ERP and Crisis Management Plan (CMP) have been further enhanced by expanding on the process whereby the plans are reviewed and tested on a set frequency.
	• Going forward Meadowbank will hold at least annual mock drills with field exercises for a cyanide emergency holding their first mock drill since 2017 in September 2021.
	These drills will include formal evaluation of the adequacy of the plan and training of the ERT and results will be used to continually improve the plans.

5.8 **Principle 8 – Training**

Train Workers and Emergency Response Personnel to Manage Cyanide in a Safe and Environmentally Protective Manner

Standard of Practice 8.1: Train workers to understand the hazards associated with cyanide use.		
FINDING: The operation is in full compliance, with Standard of Practice 8.1	 BASIS FOR FINDING: Mining Operation Meadowbank is in Full Compliance with Standard of Practice 8.1 which requires that the site train workers to understand the hazards associated with cyanide use. At induction there is a general awareness for all employees that cyanide is in use at Meadowbank and there is general awareness across the mine site regarding cyanide (example the cyanide pamphlet). There is additional chemical awareness training that includes cyanide management for those workers that may come in contact with it (Mill Safety Maintenance Instrumentation etc.) The ecourse is refreshed on a 	
	three year basis with records tracking in a training management system.	

Standard of Practice 8.2: Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

FINDING: The operation is in full compliance with Standard of Practice 8.2.	BASIS FOR FINDING: Mining Operation Meadowbank is in Full Compliance with Standard of Practice 8.2 that requires that the site train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.
	 A program for task based training for workers involved in production, mixing, and maintenance has been established and include clear Lesson Plans outlining expectations as well as Progression Frameworks to ensure workers gain additional competency as more complex tasks are undertaken.
	 These plans include both theoretical and practical training that must be authorized by a Supervisor and Trainer before the Operator becomes certified to perform tasks. Competency is maintained through annual review of procedures and a three year re-certification as a Safe Operator. AEM has a program to train the trainers in effective training techniques prior to being considered for the training role. A training management system is used to track training completion and includes records of completed training, tests, sign-sheets associated with individual names for easy traceability.
	 Job-Training-Observations (JTO) are conducted on a regular basis to monitoring that training remains effective. Supervisors have a minimum number of JTOs to complete on a monthly basis. Should a JTO for a worker prove to be inconclusive, the worker must go over the training again for the specific task.

Standard of Practice 8.3: Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

FINDING: The operation is in full compliance with Standard of Practice 8.3.	BASIS FOR FINDING: Mining Operation Meadowbank is in Full Compliance with Standard of Practice 8.3 that requires that the site train appropriate workers and personnel to respond to exposures and environmental releases of cyanide.
	• Meadowbank has trained the appropriate resources to respond to worker exposure and environmental releases. This includes training for workers on Mill procedures that include embedded responses to a cyanide related event as well as specific training in terms of cyanide release. In addition, Mill workers are required to complete separate response training including first aid, oxygen administration, and responding to spills of cyanide inside the Mill. There is a surface emergency response team that receives initial 32 hour basic training plus specialized training in Hamza response, Advanced First Aid, and SCBA. A review of training schedule shows that this include detecting and responding to cyanide incidents and decontamination with competency tracked through both theoretical and practical tests. Ongoing refresher training is required to remain a certified ERT member according to the site and local regulatory requirements. Records of training are maintained in both the site-wide training management system as well as a database managed by the Emergency Response Counsellor. Given the remote location of the mine site there is no opportunity for coordinating with external responders other than an Agreement for medi-vac services for potential cyanide victims.

5.9 Principle 9 – Dialogue and Disclosure

Engage in Public Consultation and Disclosure.

Standard of Practice 9.1: Promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.

FINDING:	BASIS FOR FINDING:
The operation is in full compliance with Standard of Practice 9.1.	Mining Operation Meadowbank is in Full Compliance with Standard of Practice 9.1 that requires the site to promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.
	 There are various mechanisms that Meadowbank uses for communication to stakeholders regarding cyanide management. This includes verbal communication in formal meetings with members of local Inuit communities, written communication on cyanide management, audible communication through a dedicated radio announcement when cyanide transport occurs as well as digital communication through a mine dedicated Facebook page. In addition, Meadowbank has established an Inuit Impact Benefit Agreement (IIBA) that sets out the communication. By having various forms of communication, Meadowbank was able to support dialogue on cyanide management throughout the COVID-19 pandemic when some face-to-face engagements were temporarily put on hold. Communication was noted to be provided in both English and Inuktitut.

Standard of Practice 9.2: Make appropriate operational and environmental information regarding cyanide available to stakeholders.

FINDING:	BASIS FOR FINDING:
The operation is in full compliance with Standard of Practice 9.2.	 Mining Operation Meadowbank is in Full Compliance with Standard of Practice 9.2 that requires that the site make appropriate operational and environmental information regarding cyanide available to stakeholders. Meadowbank uses various media methods to make relevant information available to stakeholders. A pamphlet outlining the uses of cyanide at the mine was updated in 2021 and is available in both English and Inuktitut. It is made available at the Baker Lake community house and during public meetings. Of most importance is the transport of cyanide that occurs annually. Planning for the event includes early communication to the community through radio, Facebook and written materials. The use of these other media were most important during the COVID -19 pandemic when many face-to-face meetings were delayed. A pamphlet outlining the main uses of cyanide at the mine was updated in 2021 and is available in both English and Inuktitut. There have been no publically reportable cyanide related incidences (safety or environment) that required public reporting in the verification period (2018-2021). Medical aids whereby potential exposures required during the required to the obvingent of the operite division at the operite division were during the to be obvingent of the operite division and over on during the report to the operite division at the operite division were during the to be obvingent of the operite division at the operite division were during the to be obvingent of the operite division were during the top operited to the obvingent of the operite division of the operite division of the operited to the obvingent of t
	Safety and Compensation Committee (WSCC).

Standard of Practice 9.2: Make appropriate operational and environmental information regarding cyanide available to stakeholders.		
	•	Each year Meadowbank reports on performance to the Nunavut Impact Review Board on performance that would need to include any spills or releases to the environment. The report is available to the parties of the IIBA and the public if requested. There have been no reportable spills of cyanide in the verification period (2018-2021).

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