

Assessment of surety bonds as reclamation security

Final Summary Report

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Prepared for:

Government of the Northwest Territories



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Table of Contents

Executive Summary.....	1
1. Introduction	1
1.1 Background	1
1.1.1 Legislative overview.....	1
1.1.2 Closure and reclamation security overview.....	2
1.1.3 Forms of closure and reclamation security	3
1.1.4 Purpose of Assessment	3
1.2 EY's Assessment approach.....	4
1.2.1 Jurisdictional scan and outreach	4
1.2.2 Reclamation surety bond templates terms and conditions review	4
1.2.3 Risk identification, assessment, and mitigation opportunities.....	4
1.2.4 Implementation assessment.....	5
2. Jurisdictional scan and stakeholder outreach	6
2.1 Objectives.....	6
2.2 Summary of findings.....	6
2.2.1 Jurisdictional scan	6
2.2.2 Stakeholder outreach.....	10
3. Reclamation Surety Bond template terms and conditions review	13
3.1 Objectives.....	13
3.2 Summary of findings.....	13
3.2.1 Review of key commercial terms of surety bond templates	13
3.2.2 Precedent disputes review	16
4. Risk Identification, Assessment and Mitigation	19
4.1 Objectives.....	19
4.2 Summary of findings.....	19
4.2.1 Risk identification	19
4.3 Development of core assumptions	21
4.3.1 Risk assessment	24
4.3.2 Mitigation measures.....	25
5. Implementation Assessment	28
5.1 Objectives.....	28
5.2 Assumptions	28
5.3 Summary of Findings	28
6. Conclusion	29

Figures

Figure 1 - Map of Canadian jurisdictions that accept reclamation surety bonds	7
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Tables

Table 1 - Jurisdictions in Canada & US reviewed in jurisdictional scan	6
Table 2 - Summary of findings from jurisdictional scan	7



Table 3 - Summary of findings from stakeholder outreach.....	10
Table 4: Jurisdictions reviewed for surety bond template terms and conditions	13
Table 5 - Summary of findings of key commercial terms of surety bond templates	13
Table 6 - Summary of risks identified in risk workshops.....	19
Table 7 - Assumptions considered in risk workshops for surety bonds and ILOCs	23
Table 8 - Summary of risk assessment	25
Table 9: Framework for Reclamation Surety Bond	25
Table 10 - Summary of mitigation measures	26
Table 11 - Summary of implementation activities	28



Executive Summary

The Government of Northwest Territories (“GNWT”) is considering reclamation surety bonds as a form of financial security for closure and reclamation works. The GNWT’s preferred forms of reclamation security are cash and Irrevocable Letters of Credit (“ILOCs”). In some cases, it may allow other forms of security deemed acceptable by the Minister of Lands and Minister of Environment and Natural Resources (“Minister”), potentially including surety bonds. Currently, the GNWT has no formal policy or guidance on alternate forms of closure and reclamation security .

The lack of policy on alternate forms of security for reclamation works and environmental compliance has resulted in key stakeholders (i.e. industry groups, insurance providers and sureties) requesting further guidance, as the lack of clarity may present an economic risk. These stakeholders are directly impacted by the acceptable forms of security and have expressed concerns regarding the impact on investment in the Northwest Territories’ (“NWT”) economy. This is primarily due to the competition for business investment with jurisdictions that have a robust and transparent reclamation security policy that outline considerations for both cash and other alternate forms of security such as surety bonds. Operators may be more inclined to invest in projects in other jurisdictions that have clear policies on the forms of closure and reclamation securities including criteria for accepting surety bonds.

Ernst & Young Orenda Corporate Finance Inc (“EY”) was retained by the GNWT to address the concerns over accepting surety bonds to help inform the GNWT’s upcoming policy decision. As part of the assessment, EY has followed a four-step approach:

- ▶ **Jurisdictional Scan and Outreach:** Reviewed currently accepted closure and reclamation security requirements across all Canadian jurisdictions and two resource driven jurisdictions in the United States. Interviewed relevant stakeholders to gather input on the challenges and opportunities on the use of reclamation surety bonds.
- ▶ **Reclamation Surety Bond Templates Review:** Reviewed the terms and conditions in reclamation surety bond templates to inform the commercial considerations for the use of surety bonds by the GNWT.
- ▶ **Risk Identification, Assessment and Mitigation:** Facilitated a series of workshops with participants from various GNWT departments to identify risks, undertake a qualitative assessment of the identified risks based on likelihood of occurrence and magnitude of impact on occurrence, and formulate mitigation opportunities for the key risks.
- ▶ **Implementation Assessment:** Assessed the incremental administrative costs to the GNWT of maintaining surety bonds compared to ILOCs.

ILOCs remain one of the most frequently used methods of financial guarantees provided by operators across jurisdictions. ILOCs often require collateral requirements from small to mid sized operators on resources projects. This not only increases the working capital requirement for these operators, but also hinders their borrowing capacity.

Thirteen of the fifteen jurisdictions analysed allow reclamation surety bonds as a form of acceptable closure and reclamation security. The only exceptions being GNWT and Nunavut, where the forms of acceptable closure and reclamation security is at the Minister’s discretion. Feedback from stakeholder outreach sessions indicated that reclamation surety bonds benefit operators through relaxed liquid



collateral requirements when compared to ILOCs. This reduces the upfront working capital requirements for the operators and frees up borrowing, further exploration and investment capacity.

The acceptance of reclamation surety bonds presents risks including:

- ▶ Lack of awareness regarding reclamation surety bonds amongst various levels of governments, local communities and residents of NWT;
- ▶ Negative perceptions due to experience with claim-based insurance products; and
- ▶ Adverse impacts to an operator's financial position if a security is called due to indemnity agreements between sureties and operators.

These risks can be managed and mitigated through the development of a policy framework to safeguard the public's interests. Similar to other jurisdictions, the policy framework should address elements such as:

- ▶ Obligees maintaining absolute, irrevocable and unconditional access to security amount;
- ▶ Ensuring strong creditworthiness of the surety;
- ▶ On-demand conditions of payment;
- ▶ Established frequency of bond renewal periods;
- ▶ Replacement security options;
- ▶ Ability to change the reclamation requirements;
- ▶ Notice provisions for termination or incapacity by the Surety; and
- ▶ Right to litigate among the parties (i.e. Obligee, Principal, or Operator).

Should the GNWT determine it will proceed with the use of reclamation surety bonds it should consider:

- ▶ Developing a policy for the alternate forms of closure and reclamation security in NWT;
- ▶ Setting up a policy framework for the acceptance of reclamation surety bonds, including criteria for acceptance of reclamation surety bonds;
- ▶ Developing a reclamation surety bond template; and
- ▶ Executing a communications strategy to increase awareness regarding the various forms of closure and reclamation securities.



Introduction





1. Introduction

Ernst & Young Orenda Corporate Finance Inc (“EY”) has been appointed by the Government of Northwest Territories to undertake an assessment and provide guidance (“Assessment”) on the potential use of surety bonds as an acceptable form of closure and reclamation security for industrial and mining operations in the Northwest Territories.

1.1 Background

The Northwest Territories (“NWT”) has an extensive history of mining and oil and gas extraction. Unfortunately, there has been a legacy, with significant issues and political ramifications, where project sites were abandoned without completing the necessary closure and reclamation activities. To avoid the situation where the public is left with unfunded closure and reclamation costs, a policy and regulatory framework has been established to ensure that there is a closure and reclamation plan as well as the ability for the applicable government to access the funds to execute the plans for each site.

1.1.1 Legislative overview

Legislation for the use and occupation of lands and waters in the Northwest Territories includes:

- ▶ Northwest Territories Lands Act - Administered by the Department of Lands¹
- ▶ Commissioner’s Land Act - Administered by the Department of Lands
- ▶ Waters Act - Administered by the Department of Environment and Natural Resources
- ▶ Mackenzie Valley Resource Management Act - Administered by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)²
- ▶ Land, resource, and self-government agreements

In addition to requirements set out in legislation, to provide policy-based guidance, the GNWT has adopted policies and guidelines such as the *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*.³ The guidelines outline an objectives-

¹ The Department of Lands and Department of Environment and Natural Resources have merged as of April 1, 2023, to form the Department of Environment and Climate Change; the department names in this report reflect the names used at the time the project was conducted.

² Per section 4 of the Mackenzie Valley Resource Management Act (“MVRMA”), certain roles, duties and functions have been delegated to a GNWT minister through a delegation instrument and a GNWT minister is responsible for administering the provisions of the MVRMA that apply on lands outside a federal area.

³Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories (2013):

https://www.enr.gov.nt.ca/sites/enr/files/guidelines_for_the_development_of_closure_and_reclamation_plans_for_advanced_mineral_exploration_and_mine_sites_in_the_nwt_2013.pdf

Mine Site Reclamation Policy for the Northwest Territories (2002):

https://www.lands.gov.nt.ca/sites/lands/files/resources/mine_site_reclamation_policy_-_nwt.pdf



based approach to closure and reclamation planning to return the affected areas to a condition that is compatible with a healthy environment and human activities.

Prior to commencing any activity under a water licence or land use permit or prior to another date or occurrence specified in the water license or land use permit, the land user (“Operator” or “Principal”) is required to provide financial securities as set by the applicable board for closure and reclamation to the liability holder (“Obligee”). This need for financial securities in advance of the approval of water licences or land use permits ensures that funds or financial assurances required for closure and reclamation activities for projects are received prior to project commencement or the corresponding liability being incurred.

1.1.2 Closure and reclamation security overview

Closure and reclamation securities are a tool used to ensure sufficient resources are available to clean-up an Operator’s site in alignment with an approved closure and remediation plan. The current regulatory framework in the NWT supports a polluter pays principle in which those who cause environmental disturbance are financially and legally responsible for restoring the land, water, and other natural resources. The purpose of closure and reclamation security is to allow the government to have access to funds to reduce or fully cover the cost of closure and remediation while ensuring the Operator still bears the cost to address the environmental damage caused by the project. As per the *Mine Site Reclamation Policy for the Northwest Territories (2002)*, every new mining operation should be able to support the cost of reclamation and all existing mining operations will also be held accountable for their reclamation liabilities.

Subject to legislation, the government department that issues the authorization determines whether a security deposit is required and, if so, the amount or quantum of the security. Subject to legislation, the applicable minister determines the form of security. Currently for the GNWT, the preferred approach to estimate closure costs is using the RECLAIM model.⁴

Regulatory authorities, government departments and inspectors undertake periodic status reports, site inspections, and reviews to evaluate the progress of authorized activities, and monitor site performance and compliance. Security amounts can be adjusted as needed upon renewal of the authorization, through amendment of the authorization or otherwise.

1.1.3 Definitions

Contractual terminology commonly used in reclamation surety bonds include the following in respect of the key parties involved:

- ▶ **Obligee:** the regulatory authority or the landowner for the benefit of which the bond security or guarantee is being issued.

⁴LWB/GNWT/CIRNAC Guidelines for Closure and Reclamation Cost Estimates for Mines (2022): https://mvlwb.com/sites/default/files/2022-01/LWB%20GNWT%20CIRNAC%20Guidelines%20for%20Closure%20and%20Reclamation%20Cost%20Estimates%20for%20Mines%20-%20FINAL%20-%20Jan%202019_22.pdf



- ▶ **Principal:** the operating company or proponent that is legally required to perform the closure and reclamation obligations and comply with any environmental or regulatory requirements under the respective land use permit, water license or other authorizations and applicable laws.
- ▶ **Surety:** the insurance company that is issuing the reclamation bond security on behalf of the operating company or proponent.

1.1.4 Forms of closure and reclamation security

Financial security for site closure and reclamation must be readily convertible to cash, held outside of the control of the proponent (and any of its creditors), must retain its full value throughout the life of the project, and generally comes in the form of:

- ▶ **Cash deposits** - a cash deposit, up to the value of the closure and reclamation liability or any value agreed with the landowner, provided by the Operator that is responsible for performing closure and reclamation works to the Obligee
- ▶ **Irrevocable Letters of Credit** - a financial instrument issued by a bank that provides a guarantee of payment, up to the value of closure and reclamation liability or any value determined by relevant government department, on behalf of the Operator to the Obligee or the liability holder
- ▶ **Surety bonds** - a financial instrument issued by an insurance company (“Surety”) that financially guarantees the Operator will meet its obligations, up to the value of closure and reclamation liability or any value agreed with the landowner, per the bond contract. For clarity, surety bonds used for environmental compliance, closure and reclamation obligations are on-demand instruments (“Demand Bonds” or “Reclamation Surety Bonds”) that allow the Obligee unrestricted access to the bond liquidity, by written notice of demand to the Surety, to ensure that the environmental disturbance will be restored to an acceptable condition per the project authorizations.

Surety bonds in the form of performance bonds are commonly used in the construction industry and are accepted by the GNWT as a form of security for construction projects. Performance bonds are distinct in key respects from Demand Bonds that are used as environmental compliance, closure and reclamation security. Demand Bonds are a guarantee that imposes an obligation on the Surety to provide funds to the Obligee upon written demand. Written demand can be made where the Operator fails to perform in accordance with the terms and conditions of the project authorizations. In contrast, a performance bond may involve an investigation and claim process to substantiate contractor default and costs to complete, which can result in delays and legal disputes.

Currently, the GNWT has no formal policy or guidance on the alternate forms of closure and reclamation security that GNWT accepts. In the NWT, the typical forms of closure and reclamation security are cash and ILOCs. Other forms of security such as Reclamation Surety Bonds may be considered upon request to the Obligee.

1.1.5 Purpose of Assessment

Industry representatives have requested that the GNWT formalize its policy with respect to acceptability of surety bonds as a form of security for closure and reclamation works and environmental compliance. The GNWT aims to develop a formal policy to provide clarity to industry,



Indigenous governments and the public on the forms of acceptable closure and reclamation security, including criteria for acceptance.⁵

1.2 EY's Assessment approach

EY's Assessment is structured into the following four sections:

- ▶ Jurisdictional scan and outreach;
- ▶ Reclamation Surety Bond template terms and conditions review;
- ▶ Risk identification, assessment, and mitigation opportunities; and
- ▶ Implementation assessment.

1.2.1 Jurisdictional scan and outreach

EY reviewed current closure and reclamation security requirements across jurisdictions in Canada and the United States to determine the kinds of securities that are acceptable as reclamation security by others. Additionally, EY held interviews to gather input on the challenges and opportunities on the use of reclamation surety bonds through discussions with industry participants, Sureties, and federal, provincial, territorial and Indigenous government representatives.

1.2.2 Reclamation surety bond templates terms and conditions review

EY reviewed terms and conditions in reclamation surety bond templates to inform the commercial considerations for the use of surety bonds to the GNWT. The aim was to address the financial and commercial risks potentially leading to non-payment or payment delays in relation to:

- ▶ Surety bond template conditions
- ▶ Surety insolvency
- ▶ Surety withdrawal / bond cancellation
- ▶ The potential for legal disputes with respect to terms and conditions of bonds and their application in various circumstances

1.2.3 Risk identification, assessment, and mitigation opportunities

EY facilitated a series of risk workshops with participants from various GNWT departments to identify risks, undertake a qualitative assessment of the identified risks based on likelihood of occurrence and magnitude of impact on occurrence and formulate mitigation opportunities for the key risks.

The risk sessions included identification and assessment of:

- ▶ Financial and commercial risks potentially leading to non-payment or payment delays (with associated cost escalation) in relation to:
 - ▶ Surety template conditions
 - ▶ Surety insolvency
 - ▶ Surety withdrawal / bond cancellation

⁵ Excluded from EY's assessment are: a review of reclamation legislation, policies unrelated to forms of security, amount of security, extent and frequency of periodic reviews, and reclamation cost estimation.



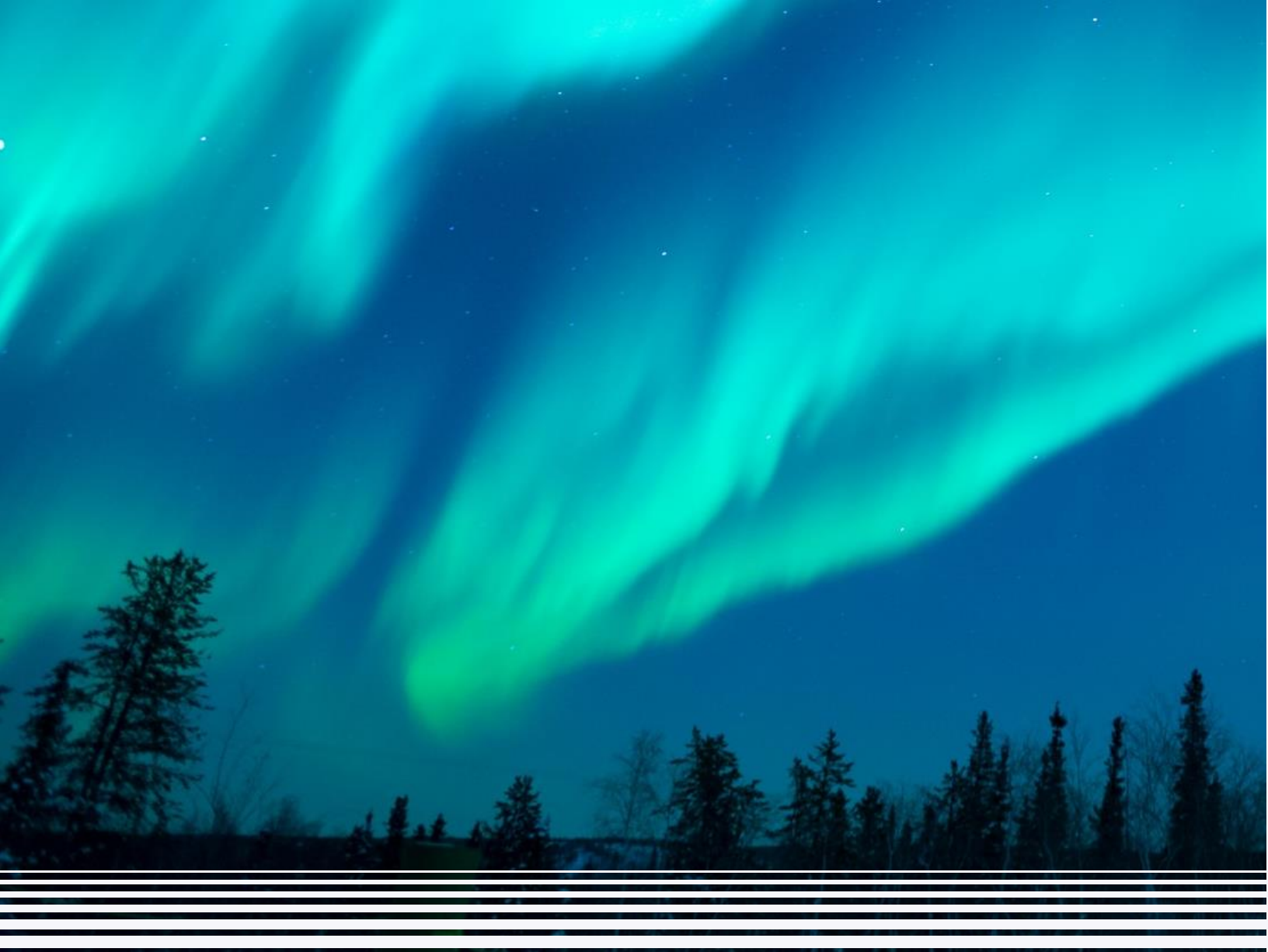
- ▶ The potential for disputes with respect to terms and conditions of bonds and their application in various circumstances
- ▶ Relationship and political risk
- ▶ Relative security of the surety bonds versus cash or ILOCs
- ▶ Perception of and trust in surety bonds from Indigenous governments, communities, and NWT residents

The final component of the risk assessment involved developing key mitigation strategies that could address identified risks and could potentially form key elements of a risk assessment framework for the acceptance of a surety bond.

1.2.4 Implementation assessment

EY assessed the incremental administrative costs to GNWT of maintaining surety bonds. The aim was to identify incremental financial and human resources in maintaining surety bonds, when compared to ILOCs, such as:

- ▶ Financial costs of initial and periodic review of creditworthiness of sureties
- ▶ Financial costs of an independent review of the financial health of the proponent.



Jurisdictional Scan and Outreach





2. Jurisdictional scan and stakeholder outreach

2.1 Objectives

The objective of the jurisdictional scan was to complete an assessment of current closure and reclamation security requirements across all the jurisdictions in Canada and two resources rich jurisdictions in the United States. Stakeholders from key groups, such as industry, sureties, federal government (CIRNAC and Parks Canada), provincial governments, territorial and Indigenous government representatives, and representatives from local communities were invited to provide input and feedback on the acceptance and experience of using surety bonds as closure and reclamation security.

Table 1 - Jurisdictions in Canada & US reviewed in jurisdictional scan

In Canada:	Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Saskatchewan, Quebec, and Yukon
In United States:	Alaska and Nevada

The jurisdictional scan and stakeholder outreach was used to inform the potential trade-offs in capital investment, economic activity, and the ability to access funds should surety bonds be accepted as a closure and reclamation security in the Northwest Territories.

2.2 Summary of findings

2.2.1 Jurisdictional scan

The jurisdictional scan focused on reviewing closure and reclamation security requirements, accepted forms of closure and reclamation security, conditions or criteria within any risk frameworks, and interpreting the findings in conjunction with the economic contribution of the resources sector to the GDP of each jurisdiction.

With respect to acceptance of surety bonds, we highlight the following:

- ▶ Out of the fifteen jurisdictions examined, thirteen accept surety bonds as closure and reclamation security based on their public policy disclosures, with the exception of Nunavut and NWT in Canada (see Figure 3), where the decision to accept surety bonds is at Minister's discretion.⁶

⁶ Federally, the department of Crown-Indigenous Relations and Northern Affairs Canada does not accept reclamation surety bonds in Nunavut as well; we understand that this is for alignment with the territorial legislation.

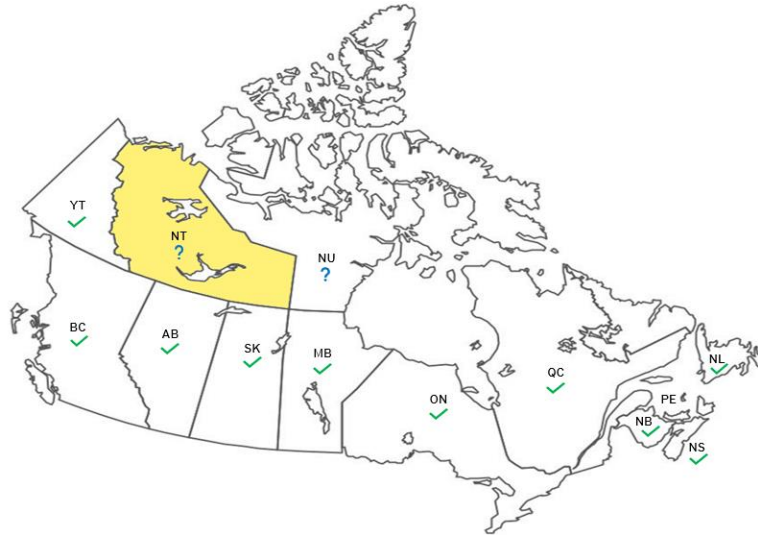


Figure 1 - Map of Canadian jurisdictions that accept reclamation surety bonds

- ▶ There is considerable variation across jurisdictions in the approach to accepting surety bonds. Some jurisdictions take a similar approach to the GNWT and require governmental approval whereas others have defined Demand Bond templates.
- ▶ Ontario has two surety bond templates, one provided by the Ministry of Environment and another by the Ministry of Northern Development, Mines, Natural Resources and Forestry; the latter is specifically for post-closure mine closure and reclamation obligations while the former is tailored for landfills and other land uses.
- ▶ Eight jurisdictions have a publicly available bond agreement template with standardized terms and conditions which vary by jurisdiction.⁷ Where Reclamation Surety Bond templates are provided, they provide a market-tested benchmark for the bond’s key commercial terms and conditions. Supplemental guidelines offer insights into risk mitigation measures for acceptance of surety bonds for closure and reclamation security.

Shown below in Table 2 is a summary of findings of the jurisdiction scan.

Table 2 - Summary of findings from jurisdictional scan

Jurisdiction	Industry Context ⁸	Regulatory Acceptance of Surety Bonds
Alberta	<ul style="list-style-type: none"> ▶ Economic activity as measured by Gross Domestic Product (GDP) in 2018 was \$53.0B in the oil & gas sector and \$11.3B in 	<ul style="list-style-type: none"> ▶ Reclamation Surety Bonds are accepted in Alberta under the Mine Financial Security Program and Waste Control Regulation and the Oil and Gas Conservation Regulation and Pipeline Act. ▶ Alternative forms of security (other than cash, letters of credit and surety bonds) are considered on a case-by-case basis and require prior approval by the Alberta Energy Regulator (AER).

⁷ Jurisdictions include Alberta, British Columbia, Nova Scotia, Ontario, Quebec and Yukon in Canada along with Alaska and Nevada in the United States.

⁸ For all Canadian jurisdictions considered, the following information is based on estimates from Statistics Canada: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610048701&pickMembers%5B0%5D=2.13&cubeTimeFrame.startYear=2015&cubeTimeFrame.endYear=2019&referencePeriods=20150101%2C20190101>



Jurisdiction	Industry Context ⁸	Regulatory Acceptance of Surety Bonds
	the mining and quarrying sector.	<ul style="list-style-type: none"> ▶ Alberta has a broad risk framework using an Integrated Decision Approach along with the Mine Financial Security Program which requires four types of security (base security deposit, operating life deposit, asset safety factor deposit and outstanding reclamation deposit) tailored to specific risks for mitigation based on criteria such as financial metrics, and pre-defined triggers e.g., meeting closure and reclamation plan targets, etc.^{9,10}
British Columbia	<ul style="list-style-type: none"> ▶ BC's mining and quarrying industry had a GDP of \$7.3B in 2018 and its oil and gas industry had a GDP of \$3.5B. 	<ul style="list-style-type: none"> ▶ Reclamation Surety Bonds are accepted under the BC Mines Act and the Hazardous Waste Regulation and the Environmental Management Act. ▶ The Chief Inspector of Mines is responsible for final approval of security and can set conditions on a case-by-case basis. ▶ BC publishes a surety bond template and has a well-established risk framework where a risk register is maintained and updated annually.
Manitoba	<ul style="list-style-type: none"> ▶ In 2018, Manitoba had a GDP of \$1.0B and \$0.8B for the energy and mining industries respectively. 	<ul style="list-style-type: none"> ▶ The Manitoba Mine Closure Regulation 67/99 accepts third party security such as Reclamation Surety Bonds.¹¹
New Brunswick	<ul style="list-style-type: none"> ▶ New Brunswick's mining and quarrying industry generated a GDP of \$0.3B in 2018. 	<ul style="list-style-type: none"> ▶ Reclamation Surety Bonds are accepted in New Brunswick under the Clean Environment Act, which guides the development of a mining and closure and reclamation plan.
Newfoundland and Labrador	<ul style="list-style-type: none"> ▶ GDP in 2018 was \$6.2B and \$2.2B for the energy and mining industries, respectively. 	<ul style="list-style-type: none"> ▶ Reclamation Surety Bonds are an accepted form of reclamation security under the Mining Act and the Quarry Materials Act, subject to ministerial approval but not accepted under the Labrador Inuit Claims Agreement.
Nova Scotia	<ul style="list-style-type: none"> ▶ The mining quarrying industry in Nova Scotia generated around \$0.3B in GDP in 2018. 	<ul style="list-style-type: none"> ▶ Reclamation Surety Bonds are an acceptable form of closure and reclamation security in Nova Scotia under the Mineral Resources Act and Environmental Goals and Sustainable Prosperity Act. This is applicable to both mining and oil and gas sectors in the province.¹²
Nunavut	<ul style="list-style-type: none"> ▶ The mining and quarrying industry in Nunavut 	<ul style="list-style-type: none"> ▶ Reclamation Surety Bonds are not accepted in Nunavut.

⁹ Integrated Decision Approach: <https://www.aer.ca/regulating-development/project-application/integrated-decision-approach>

¹⁰ Mine Financial Security Program: <https://uat.aer.ca/regulating-development/project-closure/liability-management-programs-and-processes/mine-financial-security-program>

¹¹ The need for an approval by the Director of Mines is dependent upon the specific surety bond used per the guidelines - <https://www.gov.mb.ca/iem/mines/acts/financialassurance.html#:~:text=Manitoba%20Mine%20Closure%20Regulation%2067%2F99%20Mine%20Closure%20Guidelines,of%20changes%20to%20The%20Mines%20and%20Minerals%20Act>

¹² The bond template can be obtained through an email request to the Department of Natural Resources and Renewables, Government of Nova Scotia



Jurisdiction	Industry Context ⁸	Regulatory Acceptance of Surety Bonds
	generated around \$0.7B GDP in 2018.	<ul style="list-style-type: none"> ▶ Reclamation surety bonds where the security is partially held by the federal government, specifically Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), are also not accepted in Nunavut.
Ontario	<ul style="list-style-type: none"> ▶ The mining and quarrying industry in Ontario generated around \$8.3B GDP in 2018. 	<ul style="list-style-type: none"> ▶ In accordance with the Mining Act and Constitution Act, Ontario accepts reclamation surety bonds from licensed issuers under the Insurance Act. ▶ Ontario publishes a template with its standard terms and conditions.
Prince Edward Island	<ul style="list-style-type: none"> ▶ There is no material economic activity in PEI as relates to the oil and gas and mining and quarrying industries. 	<ul style="list-style-type: none"> ▶ Although Prince Edward Island does not have significant industrial activity relating to the mining and energy sectors, reclamation surety bonds are accepted under the Mineral Resource Act.
Saskatchewan	<ul style="list-style-type: none"> ▶ Saskatchewan's mining and quarrying industry generated \$6.7B GDP in 2018 alongside \$8.4B GDP for the oil and gas industry. 	<ul style="list-style-type: none"> ▶ Reclamation surety bonds are accepted under the Reclaimed Industrial Sites Acts applicable to the mining sector.
Quebec	<ul style="list-style-type: none"> ▶ Quebec has a strong mining and quarrying industry with a GDP of over \$6.2B in 2018. 	<ul style="list-style-type: none"> ▶ Reclamation surety bonds are accepted in Quebec under the Mining Act. ▶ A template is provided along with guidelines for the bond security agreement or guarantee policy.
Yukon	<ul style="list-style-type: none"> ▶ The mining and quarrying activity in the Yukon is relatively small (compared to major mining jurisdictions in Canada) with a GDP of approximately \$0.2B in 2018. 	<ul style="list-style-type: none"> ▶ Reclamation surety bonds are accepted under the Surface Rights Board Act, Waters Act and Quartz Mining Act. The Yukon mine site reclamation and closure policy provides financial guidelines including a template surety bond agreement with standard terms and conditions.
Alaska (US)	<ul style="list-style-type: none"> ▶ Nonfuel mineral production is estimated at USD \$3.4B in 2018 (equivalent to CAD \$4.3B at CAD-USD exchange rate of 0.8).¹³ 	<ul style="list-style-type: none"> ▶ Reclamation surety bonds are accepted in Alaska in accordance with the federal Bureau of Land Management (BLM). Alaska state office's mining reclamation bonding guidelines include a template surety bond agreement with standard terms and conditions. ▶ The oil and gas leasing regulations (43 CFR 3104) also accept surety bonds as security prior to commencement of surface disturbing activities related to drilling operations on a federal oil and gas lease.
Nevada (US)	<ul style="list-style-type: none"> ▶ Non-fuel mineral production is estimated at USD \$7.9B in 2018 (equivalent to CAD \$9.9B) 	<ul style="list-style-type: none"> ▶ Reclamation surety bonds are accepted in Nevada in accordance with the federal regulations (BLM). ▶ The BLM - Nevada state office publishes reclamation bonding guidelines for accepting surety bonds including a reclamation

¹³ USGS Mineral Commodities Summaries (2019): https://d9-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/atoms/files/mcs2019_all.pdf



Jurisdiction	Industry Context ⁸	Regulatory Acceptance of Surety Bonds
	at CAD-USD exchange rate of 0.8). ¹⁴	cost model for notice level operations, financial guarantee instructions, statewide and nationwide bonds, phased bonding, bond reduction and release protocols, transfer or change of operator and a template bond agreement with standard terms and conditions.

2.2.2 Stakeholder outreach

The following is a summary of the stakeholder outreach findings by target group:

Table 3 - Summary of findings from stakeholder outreach

Market Participants	Feedback Highlights
Government / Regulators	<ul style="list-style-type: none"> ▶ Participants from various levels of governments expressed a requirement for continued unrestricted and unconditional access to the full security amount to cover the cost of closure and remediation. ▶ Most participants expressed indifference as to form of closure and reclamation security between Irrevocable Letters of Credit (“ILOC”) and Demand Bonds, some expressed a preference for surety bonds for larger projects. This preference was driven by the comfort derived from the financial strength of established global mining companies which are often implementing a larger project and the quantum of closure and reclamation security required for a large project. ▶ Few participants raised concerns regarding the financial implications for an operator’s business continuity upon drawing on the surety bond.¹⁵ ▶ Jurisdictions that currently accept surety bonds for closure and reclamation indicated that they perform little to no additional due diligence and administrative activities for accepting surety bonds when compared to the due diligence performed while accepting ILOCs.
Industry (mining companies in NWT)	<p>Exploration:</p> <ul style="list-style-type: none"> ▶ Industry participants stated that they are often required to provide cash as security or collateral for ILOCs which restricts funds that could be used for exploration purposes. ▶ Stakeholders stated that the order of magnitude of closure and reclamation obligations for exploration ranges between hundreds of thousands to tens of millions of dollars based on the size of exploration as estimated using RECLAIM. ▶ Mine operators have experienced liquidity challenges due to limited cashflows. Cashflows are further restricted by higher collateral requirements for an ILOC compared to surety bonds. ▶ Prefer surety bonds as it frees up some funds used for providing collateral for an ILOC which frees up the borrowing capacity and increases the Operator’s ability to raise equity capital. ▶ Exploration companies emphasized the need for promoting more exploration activity in NWT to sustain and grow current levels of economic activity in the mining sector as most of

¹⁴ USGS Mineral Commodities Summaries (2019): https://d9-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/atoms/files/mcs2019_all.pdf

¹⁵ The partially secured or non-collateralised nature of surety bonds may trigger the Surety to pursue business owners for breach of the joint indemnity agreement signed between Surety and Operator if an Operator is unable to pay reclamation costs.



Market Participants	Feedback Highlights
	<p>the large existing mines are in latter stages of their life cycle. They view allowing surety bonds as closure and reclamation security as helpful in this regard.</p> <p>Production:</p> <ul style="list-style-type: none"> ▶ Small-to-mid sized operators and some larger operators that do not have diversified global operations, strongly prefer surety bonds as a form of closure and reclamation security to support value-enhancing projects and expansions of existing mines due to their limited cashflows and ability to raise additional capital. ▶ Large multinational mining companies with strong balance sheets are relatively indifferent between ILOCs and surety bonds as they do not need to put up cash collateral on ILOCs due to the strengths of their parent company's balance sheets. However, participants stated there is value in having the flexibility of additional options for accepting closure and reclamation security.
<p>Surety Companies</p>	<ul style="list-style-type: none"> ▶ Participants from sureties stated that the lack of clarity in policies and regulatory requirements could increase uncertainty and risk for sureties and operators, and this would trickle down into the pricing of surety bonds. Sureties prefer policy certainty which helps them manage their risks effectively and offer tighter pricing to Operators. ▶ Sureties explained the extent of initial due diligence they undertake on Operators. ▶ Similar to banks, sureties also undertake periodic due diligence on the Operators. These are not usually shared with the Obligee. The degree of due diligence by sureties and risk appetite varies across sureties and can limit availability of surety bonds or potentially make surety bonds expensive for exploration projects or small-to-mid sized operators. ▶ Sureties stated that they are proactive in avoiding operator defaults and will direct their efforts towards early engagement in a collaborative manner with the Principal or Operator and Obligee(s) to ensure project success.¹⁶ ▶ Global, well-diversified sureties have credit ratings that are comparable to Canadian chartered banks.
<p>Indigenous Governments, Political Representatives and Non-government Organizations (NGOs) in NWT</p>	<ul style="list-style-type: none"> ▶ Assessment of surety bonds was raised as part of the outreach activities during an inter-governmental council meeting where the Indigenous governments expressed interest in the outcome of the Assessment and need for involvement in the final process leading to any GNWT closure and reclamation security policy decisions that would impact them. ▶ While efforts were made to seek interviews with Indigenous governments and gather feedback on the issue of surety bonds as closure and reclamation security, no further input has been received from the Indigenous governments as at time of writing this report. ▶ Participants highlighted that there is the perception that insurance companies are riskier than Canadian banks due to their inclination to challenge claims. A similar concern related to a claim-driven surety bonds was expressed where the legal language of the bond allows insurance companies to dispute or challenge the amount of a claim. ▶ Provided feedback that Canadian chartered banks are well-regulated with a good reputation globally for being conservative. ▶ It was recognized that use of surety bonds as closure and reclamation security is advantageous to the mining companies but need to be aligned with government and taxpayer interests as well. ▶ A concern for GNWT human resources capacity limitations and additional effort being required for the government to monitor financial metrics and compliance should surety bonds be accepted as closure and reclamation security was raised.

¹⁶ We understand from GNWT Ministry of Environment and Natural Resources personnel that Sureties refused to extend the pay down date for an Operator in a recent case in NWT.



Market Participants	Feedback Highlights
	<ul style="list-style-type: none">▶ It was highlighted that form of security (scope of this outreach) on its own is only one piece of the puzzle and that other regulatory aspects (i.e., mandatory financial security & reclamation plans, reclamation estimation method, periodic financial review of operator, transparency of decision making, publicly available reporting and policy framework) are needed to protect the environment and taxpayers from closure and reclamation liability.▶ It was acknowledged that consideration of other jurisdictions' approach to surety bonds as closure and reclamation security can provide comfort, especially where these jurisdictions have similar attributes to the Northwest Territories.▶ A need for greater transparency and accountability in administration of closure and reclamation security, especially in areas where ministerial discretion may apply was expressed. For example, a detailed list of financial security currently held by the government, providing name of project, amount, form of security, etc., would help improve public trust.▶ A concern was raised at the level of risk that closure and reclamation security would fail to protect the taxpayer and the environment when closure and reclamation works are not completed as planned.▶ A concern was raised that junior mining companies are less likely to meet closure and reclamation obligations and that acceptance of surety bonds as closure and reclamation security would encourage more junior companies to operate in the NWT, leading to more mine failures.▶ It was acknowledged that there is a need for the government's unfettered and unconditional access to the security funds.▶ A need was noted for more frequent and extensive site inspections as part of the licensing or permitting requirements to provide the GNWT with greater visibility into the underlying reclamation liability.



Reclamation Surety Bond template terms and conditions review



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3. Reclamation Surety Bond template terms and conditions review

3.1 Objectives

The objective of the review of key commercial terms and precedent dispute review was to inform the potential risks to GNWT posed by surety bonds. EY undertook a review of key commercial terms and conditions in reclamation surety bond templates for use as closure and reclamation security from jurisdictions in Table 4.¹⁷

Table 4: Jurisdictions reviewed for surety bond template terms and conditions

In Canada:	Alberta, British Columbia, Nova Scotia, Ontario, Quebec, and Yukon
In United States:	Alaska and Nevada

Additionally, EY researched precedent disputes in Canadian jurisdictions involving calling of surety bonds, including the nature of the dispute, key outcomes, and relevant potential implications. Surety bonds disputes includes reclamation and performance surety bonds in the construction industry.

3.2 Summary of findings

3.2.1 Review of key commercial terms of surety bond templates

The following table presents a summary of findings from our review of reclamation security bond templates.

Table 5 - Summary of findings of key commercial terms of surety bond templates

Key Areas	Summary Comments
Obligations	
Authorization(s) and applicable Legislation	Relevant applicable legislations should be clearly set out in the bond template. Typical Authorizations and any applicable plans for environmental compliance should be clearly set out in the bond template.
Bond Obligation	The Surety's payment to the Obligee of up to the bond amount either on behalf of the Principal (or operator), or in joint and several liability with the Principal. Payment is made in the event of non-compliance or default on the Principal's obligations under the Authorization, or applicable Legislation.

¹⁷ Additional legal advice as it pertains to the contract provisions and implications is recommended.



Key Areas	Summary Comments
Joint and several liability	Joint and several liability ensures that both the Principal and the Surety are each liable for the full amount of the bond. The joint and several liability extends to any co-sureties that are party to the bond under the same terms and conditions.
Release	Typically this clause provides that if the Principal faithfully observe and perform on all the regulatory obligations and requirements under the Authorizations, and applicable Legislation, then the bond is null and void and the Obligee shall release it in full or in part to extent the Obligee determines the reclamation to have been accomplished, otherwise the bond remains in full force and effect.
Transfer, Extension or Conversion	<p>In Ontario's bond template, the Obligee is entitled to convert the bond into cash upon notice of termination from the Surety without an acceptable substitute security in place.</p> <p>The mine closure templates accepted in Ontario and Nova Scotia allow the Obligee at its discretion to reduce the bond amount for progressive reclamation deemed as partial completion of the rehabilitation and reclamation of the applicable site, with the submission by the Principal of a written application pursuant to the requirements of the Mining Act.</p> <p>The bond template in BC automatically extends the obligation to future changes in the regulatory requirements and/or in the plan of operations.</p> <p>The US-BLM bond template accepted in Alaska and Nevada extends the bond coverage to any transfers of operating rights under the plan of operations entered into or acquired by the Principal and any subsequent activity by the Principal as operator under a plan of operations issued pursuant to the applicable laws. The US regulatory framework also allows for surety bonds to have state-wide or nation-wide coverage.¹⁸</p>
Access to Funds	
On demand payment	Reclamation surety bonds are notice-based demand bonds payable by the Surety to the Obligee upon written notice of demand or default. ILOCs are similarly structured on demand securities issued by banks.
Notice / Trigger / Demand Mechanism	<p>Bond payment is triggered by way of a written request, Demand Notice or a Notice of Default issued by the Obligee to the Surety.</p> <p>The demand can be up to the specified Bond Amount. Multiple demands may be issued under the same bond but cannot collectively exceed the bond amount.</p> <p>The called upon funds are held by the Obligee for the purposes specified in the Authorization, and applicable Legislation.</p>
Maximum Payment (Surety's Limit of Liability)	The Surety's payments do not exceed the stipulated bond amount.

¹⁸ Bureau of Land Management Bonding Guidelines - https://www.blm.gov/sites/blm.gov/files/uploads/NV_3809%20Reclamation%20Bonding%20Guidelines.pdf



Key Areas	Summary Comments
Payment / Performance Conditions	<p>The conditions specify the required basis of the Obligee's written notice of demand or default.</p> <p>Conditions relating to payment may include clauses that reinforce the irrevocability and absolute nature of the surety's obligation to pay, guard from diminishing the obligation in face of any invalidity, claim forfeitures, procedural priorities, changes by law or otherwise, and specify speed of payment (e.g., specifying prompt or immediate payment, or in case of an Alaska bond, 15% of the bond amount is payable within 30 days of receiving notice).</p> <p>None of the surety bond templates provide an option to the Surety for curing default or performance of the closure and reclamation works in lieu of payment.</p>
Duration	
Initial Term	<p>Initial terms are treated inconsistently among the examples reviewed:</p> <ul style="list-style-type: none"> • The initial term of the bond is set to one year from signing in Ontario (per Ontario mine closure bond template), Quebec, Yukon and Nova Scotia. • A custom period, specifying a start and an end date is provided in the reclamation surety bond templates accepted in Ontario (landfills) and BC as well as one project in Alaska (Hecla Greens Creek Mines). <p>Other reclamation surety bond examples that are accepted in Alberta, Alaska, and Nevada and two projects in Alaska (Niblack and Palmer) do not specify an initial term and instead provide that the bond is in effect from signing until released in writing by the Obligee or terminated (with replacement financial security) in accordance with the applicable terms and conditions.</p>
Renewal	<p>Where there is a specified initial term (see above), renewal is automatic extending by one year on an annual basis without required documentation. Issuance of renewal certificates by Surety is optional.</p>
Term Conditions	<p>The reclamation surety bond terms and conditions remain in full force and effect for the duration of the bond's term unless it is released by the Obligee or notice for termination is provided by the Surety for any reason subject to certain conditions such as due notice periods and acceptance of substitute financial security or else outstanding bond amounts may become immediately payable to the Obligee.</p>
Notice Periods	
Notice of Termination, Cancellation or Expiry (non-renewal)	<p>A notice period of at least 90 days for cancellation or termination of the bond is required in Ontario (mine closure), Yukon, Alberta, BC, Nova Scotia, Alaska and Nevada. Additionally, Ontario (landfills) and Quebec require 60-day notice periods.</p>
Notice of Incapacity (i.e. Surety unable to fulfill obligation)	<p>Surety must notify the Obligee in writing immediately of its incapacity to fulfill its obligations under the bond for any reason. The Principal is deemed to be without coverage immediately upon Surety's incapacity to 60 days of Obligee receiving notice.</p>
Notice of Legal Action	<p>Ranges from 120 to 180 days from notice of default or demand Notice. The Alaska Niblack bond precedent provides that notice of any action alleging the Principal's failure must be prompt and immediate.</p>



Key Areas	Summary Comments
Notice of Changes (i.e. changing the Restoration and Rehabilitation Requirements by Obligee)	Not specified in most bond templates except in the Quebec template which provides 60 days notice to the Surety.
Other	
Waiver(s)	US-BLM bond template and the sample bond wording provided by GWNT includes a waiver of Surety's right to a notice of changes in the applicable authorization, plan, and legislation. The Quebec bond template includes a waiver of any grounds of defense for the Surety in pleading against the Obligee. The BC bond template waives the right of a notice to surety for bond coverage extension subject to any changes.
License	Surety to be licensed to do business in Canada or US and in the Obligee's local jurisdiction (province or territory / state).
Governing Jurisdiction	The reclamation surety bonds list the Obligee's local jurisdiction for governance and/or litigation.

3.2.2 Precedent disputes review

Of the fourteen disputes identified and analyzed, we did not find any disputes directly related to reclamation surety bond and non-payment on a reclamation security bond after being called upon via a written notice.

There were, however, numerous cases of disputes relating to performance bonds used in the construction industry that resulted in legal cases. These types of surety bonds are used regularly across Canada as well as in the NWT by contractors, are acceptable to the GNWT, and typically held by the GNWT Department of Finance.

Key takeaways from precedent disputes related to performance bonds are provided below:

- ▶ Bond conditions or wordings must be met by the Obligee for a performance bond claim to be effective. An Obligee seeking to pursue a claim or call on a performance bond must be aware of all the bond conditions as well as its obligations under the construction contract that may continue even after it has alleged that the contractor has breached the contract or defaulted on an obligation; the bond wording and agreed terms and conditions are of paramount importance.
- ▶ The actions taken by an Obligee after the performance bond has been called, can impact the surety's position under the bond and can put the owner in a position of default itself with respect to the original bond contract. For example, the Obligee must comply with the notice provisions set out in the bond contract and deliver notices within the specified period. Defective notices, or late notices to the contractor or the Surety could result in an Obligee losing the ability to recover costs and any collateral monetary obligations from the Surety.
- ▶ A recent court decision (*Urban Mechanical Contracting Ltd v Zurich, 2022*) by the Ontario Court of Appeal highlights that a bond issuer may rescind a bond agreement on the basis of fraudulent misrepresentations and collusion, even if rescinding the bond agreement would affect the rights of innocent third parties. In this case, the Surety acted on the bond and paid



subcontractors when the Principal failed to meet payment deadlines. It was later discovered by the Surety that the Principal had engaged in fraudulent misrepresentations and collusions that allowed them to secure the contract for the project. Upon this discovery, the Surety ceased all payments and declared action to rescind the bond due to fraud. The appellant parties countered that the Surety should not be able to rescind the bonds as this would affect their rights as innocent third parties. However, the Court of Appeal dismissed the appeal and ruled that the issue shall be brought to trial on a full factual record to determine if any equitable claims arise. This ruling has significant impact across the construction industry given the importance of bonds in complex public infrastructure projects.

Even though these findings are derived through the analysis of performance bonds, it shows the importance of the bond templates and due diligence.

A photograph of the Aurora Borealis (Northern Lights) in shades of green and blue, set against a dark night sky with stars. The lights appear as flowing, ethereal curtains of light. In the foreground, the dark silhouettes of evergreen trees are visible against the horizon.

Risk Identification, Assessment and Mitigation





4. Risk Identification, Assessment and Mitigation

EY facilitated a series of risk workshops with participants from various GNWT departments to identify risks, undertake a qualitative assessment of the identified risks based on likelihood of occurrence and materiality and formulate mitigation opportunities for the key risks.

4.1 Objectives

The objectives of the risk assessment and mitigation workshops were to facilitate open discussion with key stakeholders within GNWT to:

- ▶ Identify risks to the GNWT associated with environmental liabilities and the enforcement of non-compliances under key scenarios;
- ▶ Evaluate on a qualitative basis the likelihood and impact of these risks, as well as consider whether and to what extent acceptance of surety bonds may expose GNWT to additional risk or address performance issues when compared to other forms of security; and
- ▶ Assess potential strategies to mitigate identified risks that could be applied which would potentially make surety bonds acceptable to GNWT.

4.2 Summary of findings

4.2.1 Risk identification

EY facilitated a risk identification workshops which focused on identifying concerns from GNWT departments, detailing their concerns, highlighting the risk arising out each of the concerns and consolidating similar risks together with a risk definition.

Below table demonstrates the key risks identified with the participants.

Table 6 - Summary of risks identified in risk workshops

Risk ID #	Risk	Definition
1	Risk of impacting public trust	<p>Risk that public's previous negative experiences with claim-based insurance products such as home/auto insurance and lack of public information regarding:</p> <ol style="list-style-type: none"> a. surety bonds in general, b. specific use of reclamation surety bonds as closure and reclamation security and as a notice-based on-demand instruments, c. legislation applicable to sureties operating in NWT, and d. credit strength of sureties relative to banks that provide reclamation surety bonds for closure and reclamation security may result in a negative impact to the public's trust in government's ability to manage closure and reclamation liabilities. <p>As acceptance of reclamation surety bonds currently is at the discretion of the minister, there is the perception that calling on the closure and reclamation security can on the one hand be viewed as causing the Operator to go bankrupt and on the other not accepting reclamation surety bonds can be viewed as the GNWT not being</p>



Risk ID #	Risk	Definition
		proactive for business which may lead to loss of opportunity as businesses may go to other competing resource driven jurisdictions.
2	Risk of impacting relationship with Indigenous governments	Risk that views relating to historic project failures, lack of information in regards to reclamation surety bonds used as closure and reclamation security and negative past experiences with claim-based insurance products amongst Indigenous communities would impact the relationship between the GNWT and Indigenous governments should any changes to current policy on acceptable forms of closure and reclamation security in the NWT be viewed to be made without sufficient consultations with and/or involvement of the Indigenous governments.
3	Risk of impacting the operator's financial position	Risk that the GNWT's accepting of reclamation surety bonds as closure and reclamation security would negatively impact the financial position of the Principal or Operator at the time of calling on the security. If the reclamation surety bonds were called, the Principal could have financial difficulty paying back the surety provider per the indemnity agreements between Surety and the Principal.
4	Risk of impacting individual Principal owners (small operators)	The risk that indemnification arrangements between the Surety and the Principal or Operator could impact a private owner's personal holdings for privately held small operators/explorers upon bankruptcy or upon GNWT calling the closure and reclamation security.
5	Risk of uncovered closure and reclamation liability to the GNWT	The risk that upon calling on the surety bond, the GNWT would not have absolute and unfettered access to the security funds up to the bond amount on a timely manner, or at all due to the political pressure weighing on the decision to call on the closure and reclamation security. The form of closure and reclamation security will not have any material impact on the political pressure to call on a closure and reclamation security.
6	Risk of increased costs to GNWT	The risk that resource gaps or lack of recent experience with undertaking closure and reclamation projects would lead to inefficiencies, delays and potentially higher closure and reclamation costs for the GNWT upon calling on a closure and reclamation security and performing regular monitoring and review activities on outstanding reclamation security providers. Higher costs on undertaking actual closure and reclamation works can be due to delays in reclamation, redesign and/or interim care and maintenance of operational assets. The form of closure and reclamation security will not have any material impact on GNWT ability to undertake effective closure and reclamation works.
7	Risk of loss of capital investment and jobs in NWT	The risk of stranded assets, reduced economic activity, and untapped investment potential could arise due to overly restricting working capital or liquid collateral requirements for smaller operators posting ILOCs as closure and reclamation security. Some exploration companies may be too risky for banks and sureties alike to extend credit for closure and reclamation security.



4.3 Development of core assumptions

Surety products are widely used to provide financial assurance across various industries such as real estate, infrastructure, construction contracts, court and justice systems, and resources sectors. Therefore, they come in different forms and types catering to the specific needs of each sector.

To aid in the education of participants and to streamline the risk assessment and mitigation workshops, a set of core underlying assumptions were developed to ensure that identified risks related to acceptance of reclamation surety bonds were evaluated in comparison to ILOCs. It was important that the assumptions were clearly defined and fully understood to evaluate risks within the parameters to identify specific strategies and approaches for mitigation.

ILOCs and surety bonds were compared on parameters as listed below:

- ▶ **Underwriting financial institution:** Both ILOC and surety bonds are guarantee products issued and underwritten by financial institutions and therefore evaluating the fundamental strengths of the underlying financial institutions is a crucial factor. Regulatory frameworks that regulate these financial institutions and the credit strength of these financial institutions were identified risks. For the purpose of the risk assessment, EY reviewed the top six Canadian Schedule 1 banks and more than 34 Canadian and international property and casualty insurance companies which are registered to provide surety products or reinsure surety products in Canada.¹⁹
- ▶ **Counterparty credit risk:** The financial strength of an institution can be measured by analyzing its financial statements. Although a financial statement analysis gives an indication of financial strength, it does not consider critical factors such as the regulatory performance, performance compared to peers, the situation of the industry and industry outlook. To avoid such bias, government and regulators often choose to look at an institution's credit rating, which considers not just the financial position but also critical market, regulatory and economic parameters while assigning a credit rating and the outlook. This makes credit ratings a reasonable measure of evaluating the credit strength of the instrument provider.²⁰ For the purpose of risk assessment, we obtained the credit ratings of the selected banks and insurance companies from the Standard and Poor's Global Ratings and Fitch Ratings database.^{21,22}
- ▶ **Overall quality of security:** Credit rating agencies have a rating scale comprising of 22 ratings. Top 10 rating scales are considered as investment grade ratings. Most institutional and private investors have a strong preference to invest in companies with investment grade ratings. Therefore, an investment grade rating was used as an indicator to assess the credit quality of the underwriting financial institution.

¹⁹ The financial institutions considered for the analysis are not exhaustive and were selected to inform and aid the participants in the risk assessment workshops.

²⁰ Credit Ratings are opinions about credit risk. They can express a forward-looking opinion about the capacity and willingness of an entity to meet its financial commitments as they come due, and also the credit quality of an individual debt issue, such as a corporate or municipal bond, and the relative likelihood that the issue may default.

²¹ S&P Global Credit Ratings (2022): <https://www.spglobal.com/ratings/en/products-benefits/products/credit-ratings>

²² Fitch Ratings (2022): <https://www.fitchratings.com/>



- ▶ **Regulatory environment of the security provider:** Applicable regulatory framework for the underwriting financial institutions provide insights into the strength and robustness of the financial institutions. Regulatory requirements regarding the capital adequacy, liquidity, prudence, business practices, reporting, and transparency provide additional checks and balances to safeguard users' interests, in this case Obligee and Operator. Additionally, various layers of legislation at the federal and provincial or territorial level also provide additional protection to the users.
- ▶ **Initial due diligence of the operator:** Financial institutions undertake due diligence on operators before providing financial guarantees. The degree of due diligence varies based on the nature of financial instrument and the financial institution undertaking it. It is important to consider the nature and extent of initial due diligence a bank or surety company undertakes before issuing an ILOC or a surety bond.
- ▶ **Regular reviews and monitoring of the operator:** Financial institution also undertake periodic due diligence on operators after issuing an ILOC or a surety bond. The degree of due diligence varies based on the nature of financial instrument and the financial institution undertaking it. The aim of periodic due diligence is to manage risk by periodically evaluating the likelihood of a financial guarantee being called upon. It is important to consider the nature and extent of periodic due diligence a bank or surety company undertakes after issuing an ILOC or a surety bond.
- ▶ **Security amount:** The quantum of financial guarantee provided by the underwriting financial institutions is crucial to ensure adequacy of the closure and reclamation security held through the financial instrument.
- ▶ **Partial draws by Obligee:** Since the security is posted for compliance with existing authorizations, licences, laws, and legislation along with providing security to cover the cost of closure and reclamation the ability to draw partial amounts is an important factor for various reasons, including incomplete closure and reclamation or failure to comply with an inspector's order or condition in the authorization.
- ▶ **Obligee's access to security funds when called:** Access to funds is of paramount importance in the event a security is called upon by the Obligee. For any security to be on equal footing with cash deposit, the Obligee's ability to access it has to be absolute, unfettered and irrevocable and out of the control of the Principal.
- ▶ **Duration and renewal of coverage:** Duration of the security and the renewal of the financial instrument is crucial. The financial institution providing security should have limited control over renewals and coverage to the Obligee.
- ▶ **Impact on Principal's borrowing capacity:** Financial institutions that provide financial guarantees on behalf of a Principal require that the Principal is either creditworthy for that guarantee or provide liquid collateral. As mining is a cyclical business that fluctuates with commodity price cycles, typically financial institutions are cautious and require collateral. Collateral is raised through a combination of debt and equity and therefore would form part of the capital stack of the business, thereby limiting the borrowing capacity of the Principal.
- ▶ **Collateral Arrangements:** Financial institution requires Principals to demonstrate creditworthiness or put-up liquid collateral based on the financial instrument issued. The quantum of liquid collateral required prior to issuing the financial instrument depends upon the credit being a secured credit, partially secured credit, or unsecured credit.
- ▶ **Credit Seniority / Liquidity Preference (subject to a default):** The seniority of the credit provider depends upon the credit being secured, partially secured or unsecured.



- ▶ **Balance sheet treatment:** Cash collaterals provided by the Principal to the financial institutions are often restricted cash in the corporate accounts and therefore have an impact on the balance sheet of the Principal.
- ▶ **Obligee's administrative costs related to security:** An Obligee ensures that a Principal is in good financial health along with the underwriting financial institution and therefore, periodic reviews of the Principal's financial health and ongoing monitoring of the credit ratings of the underwriting financial institution is needed.
- ▶ **Acceptability in other resource-driven jurisdictions:** Acceptability of a variety of financial instruments as closure and reclamation security enables an Obligee to create a level playing field by looking at best practices in similar jurisdictions.

The above parameters were used to co-develop and agree on the assumptions with GNWT to compare ILOCs and Reclamation Surety Bonds. The following assumptions were informed by the jurisdictional scan and stakeholder outreach:

Table 7 - Assumptions considered in risk workshops for surety bonds and ILOCs

Issue	ILOC	Reclamation Surety Bond
Underwriting financial institutions	ILOC provided by chartered Canadian banks listed under Schedule 1 of the Canada Banks Act have been accepted by other jurisdictions.	Insurance Companies registered and licensed to provide surety in Canada under the Insurance Companies Act and respective Provincial or Territorial Act is considered by most other jurisdictions.
Counterparty credit risk	Credit ratings for top 6 Canadian Schedule 1 banks range from: Low end = A High end = AA-	Credit ratings for 34 selected property and casualty insurance companies registered to provide surety products in Canada or reinsure surety products in Canada range from: Low end = A- High end = AA
Overall quality of security	Quality of the security remains high based on the Investment Grade Credit Rating of the counterparty.	Quality of the security remains high based on the Investment Grade Credit Rating of the counterparty.
Regulatory environment	Banks are regulated federally.	Insurance companies are regulated federally and provincially or territorially.
Initial due diligence	Banks review the following prior to issuing an ILOC: 1. Financial health of the Principal or Operator 2. Historic financial performance and current strength of its balance sheet	Sureties review the following prior to issuing a surety bond: 1. Financial health of the Principal or Operator 2. Historic and forward-looking financial and operational (operating plan) performance
Regular reviews and monitoring	Banks review the following on an ongoing basis to maintain the ILOC: 1. Collateral, financial health and performance	Sureties review the following on an ongoing basis to maintain the surety bond: 1. Collateral, financial health and performance 2. Operational performance
Security amount	Security amount in an ILOC is as prescribed by Obligee (consistent irrespective of form of security).	Security amount in a Surety Bond is as prescribed by Obligee (consistent irrespective of form of security).



Issue	ILOC	Reclamation Surety Bond
Partial draws by Obligee	An ILOC allows for partial draws by the Obligee.	A surety bond allows for partial draws by the Obligee.
Obligee's access to security funds when called	The Obligee access to the security under an ILOC remains absolute, irrevocable and unconditional.	The Obligee access to the security under the reclamation surety bond remains absolute, irrevocable and unconditional.
Duration and renewal of coverage	Automatically renews on annual basis.	Automatically renews on annual basis.
Impact on Company's borrowing capacity	Reduces the company's senior debt borrowing capacity up to the value of the ILOC.	Reduces the company's senior debt borrowing capacity up to the value of liquid collateral (impact is lesser when compared to ILOC when 100% collateral not required).
Collateral Arrangements	<p>As senior lenders, banks will require most companies with insufficient creditworthiness to post the cash collateral.</p> <p>Cash collateral up to 100% or more of the security requirement. However, large multinational companies might not be required to post any collateral.</p>	<p>As unsecured creditors (for non-collateralised portion of the security), sureties will be more conservative in their underwriting which is subject to extensive due diligence.</p> <p>Liquid collateral (cash or LoC) up to 80%-90% of security amount, typically with a goal of reducing it over time based on operator's performance However, large multinational companies might not be required to post any collateral.</p>
Credit Seniority / Liquidity Preference (subject to a default)	ILOCs are fully secured senior credit.	Surety bonds are at best partially secured subordinated credit.
Balance sheet treatment	ILOC and the liquid collateral provided by the Principal has a balance sheet impact.	The amount of liquid collateral posted by the Principal has an on balance sheet impact and the unsecured portion of the credit is not reflected on the balance sheet.
Obligee's administrative costs related to security	Administrative costs include credit reviews of security providers and on-going monitoring.	Administrative costs include credit reviews of security providers and on-going monitoring.
Acceptability in other resource-driven jurisdictions	Accepted in all Canadian jurisdictions as a form of security for closure and reclamation obligations.	Accepted in all Canadian jurisdictions as a form of security for closure and reclamation obligations, except for Nunavut (and NWT).

4.3.1 Risk assessment

EY facilitated risk assessment workshops to qualitatively assess the identified risks based on the likelihood of occurrence and magnitude of impact on occurrence. This risk assessment was specific to the surety bond form of closure and reclamation security based on the core assumptions agreed with all the workshop participants. The risks were rated on a 5-point scale starting from Very Low to Very High. A simple average was applied to these qualitative ratings of likelihood and magnitude to arrive at overall risk ratings.



Table 8 - Summary of risk assessment

Risk ID #	Risk	Likelihood of Occurrence	Magnitude of Impact	Overall Risk Rating
1	Risk of impacting public trust	High	High	High
2	Risk of impacting relationship with Indigenous governments	Medium	Medium	Medium
3	Risk of impacting the operator's financial position	Low	Medium	Medium
4	Risk of impacting individual owners of small operators	Low	Medium	Medium
5	Risk of uncovered closure and reclamation liability to the GNWT	Low	Medium	Medium
6	Risk of increased costs to GNWT	Low	Low	Low
7	Risk of loss of capital investment and jobs in NWT	Medium	Medium	Medium

4.3.2 Mitigation measures

Mitigation measures were discussed and evaluated during the EY facilitated risk workshops. These mitigation measures were developed under the assumption that the GNWT would only accept reclamation surety bonds under a policy framework which is similar to policy frameworks commonly accepted by other jurisdictions that aligns reclamation surety bond on a similar footing with an ILOC.

A set of reasonable core assumptions, informed by the jurisdiction scan and the stakeholder outreach, were developed and agreed with GNWT. These assumptions were used to compare ILOCs with reclamation surety bonds. Implementation and adherence to this framework with these core assumptions is critical to GNWT accepting reclamation surety bonds as an acceptable form of security.

Table 9: Framework for Reclamation Surety Bond

Issue	Reclamation Surety Bond
Bond template	<p>An Obligee should develop and make available its reclamation bond template. Reclamation surety bonds should only be accepted when on Obligee's bond template.</p> <p>A bond template must identify the following critical factors:</p> <ul style="list-style-type: none"> ▶ Applicable laws and legislation under which the financial security is required ▶ Obligation of the bond provider ▶ Governing jurisdiction ▶ Term of the bond and renewal ▶ Liability of the Operator and bond provider (Joint and several liability) ▶ Bond provider's / Surety's limit of liability ▶ Notice of demand and payment conditions



Issue	Reclamation Surety Bond
	<ul style="list-style-type: none"> ▶ Notice of changes to the laws or security amount ▶ Notice of incapacity by bond provider to the Obligee ▶ Notice of legal action by surety to Obligee ▶ Notice of termination, cancellation or expiry to Obligee
Underwriting financial institutions	Reclamation surety bonds should only be accepted from Insurance Companies or Sureties registered and licensed to provide surety products in Canada under the Insurance Companies Act and in NWT under the Insurance Act.
Counterparty credit risk or Overall quality of security	<p>As evident from the jurisdiction scan and stakeholder outreach, other jurisdictions prefer high investment grade credit rating as acceptable for Sureties.</p> <p>Reclamation surety bonds should only be accepted from Sureties or Insurance Companies registered to provide surety products in Canada and having a minimum credit rating of A (low) or equivalent.</p> <p>GNWT should only accept reclamation surety bonds from insurance companies with a high Investment Grade Credit Rating.</p>
Partial draws by Obligee	Reclamation surety bond template must allow for partial draws by the Obligee for compliance, closure, and reclamation purposes.
Obligee's access to security funds when called	Reclamation surety bond template must clearly lay out the Obligee's access to the closure and reclamation security be absolute, irrevocable and unconditional.
Duration and renewal of coverage	Reclamation surety bonds must renew automatically on an annual basis.

EY facilitated a session with workshop participants to arrive at the potential mitigation strategies to reduce the key risks highlighted during the risk workshops.

Table 10 below compiles the mitigation measures for each of the key risks assessed based on the framework elements described in the Table 9.

Table 10 - Summary of mitigation measures

Risk ID #	Risk	Mitigation
1	Risk of impacting public trust	GNWT to develop and implement a communications strategy to engage with and educate the public about the reclamation surety bonds. GNWT should also have a well developed bond template to effectively manage underlying security exposure, provide greater transparency through media campaigns and addressing public concerns in a timely manner.
2	Risk of impacting relationship with Indigenous governments	GNWT to develop and implement a communications and consultation strategy specifically for Indigenous governments aimed at engaging, educating and sharing information with the Indigenous groups related to reclamation surety bonds, publishing research findings on reclamation surety bonds. GNWT must have a dedicated communication strategy for Indigenous governments that is separate from public engagement process and should involve Indigenous governments in decision on form of security (as / where applicable).



Risk ID #	Risk	Mitigation
3	Risk of impacting the operator's financial position	<p>GNWT to develop a bond template that puts reclamation surety bond requirements at par with that of an ILOC with periodic credit worthiness reviews and reporting on financial strength and performance to Obligee.</p> <p>GNWT could consider accepting mixed form of security (cash / ILOC and surety) where the same authorization or underlying closure and reclamation obligations would be secured via a combination of forms adding up to 100% of the required security amount. This would allow greater flexibility to GNWT in determining certain portion of the security in the most liquid form.</p>
4	Risk of impacting individual owners of small operators	<p>GNWT might consider requiring the Principal or Operator to provide a declaration related to personal guarantees or security or indemnity agreements they have signed with Surety.</p> <p>GNWT to develop a bond template that puts reclamation surety bond requirements at par with that of an ILOC with periodic credit worthiness reviews and reporting on financial strength and performance to Obligee.</p> <p>GNWT to consider incentivising Operators to post closure and reclamation security in cash and perform progressive reclamation works to maintain a low reclamation security liability.</p>
5	Risk of uncovered closure and reclamation liability to the GNWT	<p>GNWT to develop a reclamation surety bond template in line with other competing jurisdictions capturing that reclamation surety bond obligations are absolute, unconditional and irrevocable.</p> <p>In the event an acceptable replacement security is not provided by the Operator, GNWT might consider the bond template to trigger an automatic call on closure and reclamation security within 10 days of the expiry of notice of termination/expiry/incapacity provided by the Surety to the Obligee.</p> <p>GNWT to provide clarity on acceptability of replacement security forms (e.g. promissory notes are not acceptable) and that the same security requirements apply to replacement forms of security.</p>
6	Risk of increased costs to GNWT	<p>Lack of government experience with undertaking remediation works is unmitigatable and is not dependent on the form of closure and reclamation security.</p> <p>GNWT to develop a framework for accepting reclamation surety bonds that are on equal footing as ILOCs such as similar range of credit rating of the underwriting institutions, ensuring sureties are registered and licensed federally and within NWT, etc.</p>
7	Risk of loss of capital investment and jobs in NWT	<p>GNWT to develop a framework for accepting reclamation surety bonds that are on equal footing as ILOCs such as similar range of credit rating of the underwriting institutions, ensuring sureties are registered and licensed federally and within NWT, etc.</p> <p>GNWT to develop a reclamation surety bond template in line with other competing jurisdictions stating that reclamation surety bond obligations are absolute, unconditional, and irrevocable. This will provide clarity and certainty to the industry regarding alternate forms of security.</p>



Risk ID #	Risk	Mitigation
		By aligning with other competing jurisdictions, the GNWT ensures that industry is not subject to reclamation security requirements that are disadvantageous compared to other provinces and territories in Canada. This reduces the risk of loss of capital investment and jobs in the NWT due to lack of clarity.

Implementation Assessment





5. Implementation Assessment

5.1 Objectives

The objective of this assessment was to address the incremental administrative level of effort required in evaluating, accepting, and maintaining surety bonds as closure and reclamation security when compared to cash deposits or ILOCs. The incremental level of effort analysis will inform GNWT on the resource allocation for additional internal and external administrative costs.

5.2 Assumptions

The activities in the summary of findings presume changes to the existing policy framework to allow for acceptance of reclamation surety bond including any guidance for market participants is already in place. The administrative costs related to such processes are therefore not considered in the implementation assessment.

As GNWT already has templates for ILOCs and accepts those as financial security for closure and reclamation works, the resource allocation and administrative cost for these are part of the standard operations of the GNWT and therefore deemed as base costs for the purposes of this analysis. The focus for this assessment will be primarily on additional activities exclusively related to surety bonds.

5.3 Summary of Findings

The implementation assessment is summarized in the Table 11 below. Jurisdictional scan findings suggest specific activities that were taken by other jurisdictions that accept and use surety bonds as closure and reclamation obligations. The risk mitigation findings are mitigation measures that have been discussed during the risk workshops to reduce risk exposure and potential liability.

Table 11 - Summary of implementation activities

Activity Categories	Jurisdictional Scan	Risk Mitigation	Incremental Impact
Initial Activities	<ul style="list-style-type: none"> ▶ Review of credit worthiness of Surety ▶ Compare issuer to credit rating criteria test 	<ul style="list-style-type: none"> ▶ Establish bond template compliance ▶ Determine issuer credit rating criteria test (i.e., threshold for minimum credit rating) 	Low
On-going Activities	<ul style="list-style-type: none"> ▶ Review of credit worthiness of Surety ▶ Compare issuer to credit rating criteria test 	<ul style="list-style-type: none"> ▶ Periodic reviews of the Surety credit rating 	Low
Ad Hoc Activities	<ul style="list-style-type: none"> ▶ Internal review and discussions for decision on calling a reclamation security bond 	<ul style="list-style-type: none"> ▶ Develop a reclamation surety bond template to provide clarity 	Low



Conclusion





6. Conclusion

While ILOCs remain one of the most frequently used modes of financial guarantees provided by Operators on projects across Canadian jurisdictions, they often require collateral requirements from small to mid-sized Operators on resources projects. This requirement for collateral not only increases the working capital requirement for these Operators, but also hinders their borrowing capacity.

Reclamation surety bonds are accepted as closure and reclamation security amongst similar resource driven jurisdictions across Canada and US. As evident through the stakeholder outreach, the reclamation surety bonds help Operators through relaxed liquid collateral requirements when compared to ILOCs. This reduces the upfront working capital requirements for the Operators and frees up some borrowing capacity.

Typically, jurisdictions manage the risks of surety bonds through development of a policy framework which insures that:

- ▶ The Obligee maintains absolute, irrevocable and unconditional access to security amount
- ▶ There is strong creditworthiness of the Surety
- ▶ The conditions of payment are established
- ▶ The frequency of bond renewal is established
- ▶ There are replacement security options
- ▶ There is a process for changes in the reclamation requirements
- ▶ There are notice provisions for termination or incapacity by the Surety
- ▶ There are limited rights to litigate the Obligee, Principal, or Operator.

Should the GNWT determine it will proceed with the use of reclamation surety bonds it should consider:

- ▶ Developing a policy for the acceptable forms of closure and reclamation security in NWT;
- ▶ Setting up a policy framework for the acceptance of reclamation surety bonds;
- ▶ Developing a reclamation surety bond template;
- ▶ Executing a communications strategy to increase awareness regarding the various forms of closure and reclamation securities; and
- ▶ Executing a stakeholder consultation strategy aimed at increasing awareness and soliciting Indigenous governments feedback on the forms of closure and reclamation securities (including reclamation surety bonds).