Appendix 3-E

Aboriginal Groups Comment Tracking Table

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Accidents and Malfunctions		
Effects of tunneling on mountain stability	The *Mines Act* (1996) Health, Safety, and Reclamation Code for Mines in British Columbia (2008) requires terrain stability risks and soil types to be characterized. The Project Area (including the northern entrance to the tunnel and portal) does not overlap with terrain classified as unstable (Terrain and Soil Baseline Study, AuRico 2015). As a result of underground tunneling activities associated with the Kemess Underground Project (the KUG Project, the Project), there may be changes in the groundwater table, resulting in drier soil. Additionally, through the dewatering of the tunnels, soil may become drier, which may become erodible and less stable. It is expected that measures related to erosion prevention and sediment control will adequately manage potential risks.	Takla Lake First Nation (TLFN) • TLFN community meeting (Mar. 16, 2011)
Emergency response plan in the advent of dam/Tailings Storage Facility (TSF) failure to include notification of communities in the event of accident and/or malfunction	Chapter 24 (Environmental Management Plans), Section 24.5 (Environmental Emergency, Spill, and Hazardous Materials Plan) includes the proposed Emergency Response Plan (ERP). The ERP provides the framework for the management of emergencies, including potential failure of the East Dam of the KUG Tailings Storage Facility (TSF) and outlines procedures for containment, notification and mobilization. An Emergency Notification Plan, as per the ERP, will be developed which will provide for notification of provincial agencies, corporate personnel and potentially affected stakeholders in the event of an emergency. The ERP has been developed in accordance with the *Mines Act* (1996) and Health, Safety and Reclamation Code for Mines in British Columbia (2008), and Mine Emergency Response Plan: Guidelines for the Mining Industry (BC MEM 2012). The existing Emergency Response Plan for Kemess South has been shared with TKDN and KwN.	Kwadacha Nation (KwN) • Kwadacha Community Meeting in Fort Ware, (April 7, 2011) as outlined in the TKN memo to AuRico (Dec. 10, 2014)[1] Tsay Keh Dene Nation (TKDN) • TKDN community meeting (Nov. 6, 2014) as summarized in TKN-prepared meeting notes dated Nov. 26, 2014) TLFN • TLFN community meeting (Nov. 13, 2014) as summarized in TKN-prepared meeting notes dated Nov. 26, 2014

[1] On December 10, 2014 TKN provided AuRico with documentation summarizing TKN community concerns relevant to the Kemess Underground Project (the Project). The December 10th memo refers to several previously published reports including: the 2007 Joint Review Panel report for the proposed Kemess North Copper-Gold Mine Project (which included affidavits by TLFN members in 1997 in relation to the Kemess South project); a 2006 Klohn Crippen Berger (KCB) report responding to the Kemess Mine Expansion Kemess North Gold-Copper Project – Environmental Impact Assessment, which provides a summary of concerns identified by the Kwadacha Nation; and a 2011 Takla Development Corporation Research Branch report entitled "Tse Keh Nay Review: State of Baseline for Kemess Underground Development", which provides a summary of concerns about the Project raised by TKN members during meetings in the communities of Kwadacha, Tsay Keh and Takla Landing, as well as at a TKN gathering in Moose Valley in 2011. The December 10th memo includes comments related to Kemess South and Kemess North projects, but TKN noted that these comments were relevant and transferable to the Kemess Underground Project.

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Accidents and Malfunctions *(cont'd)*		
Potential for a failure of the Kemess South (KS) TSF on water quality	The environmental assessment for the proposed KUG Project does not include an assessment of the existing Kemess South (KS) TSF. However, AuRico commissioned a dam breach analysis and inundation study for the existing KS TSF (AMEC 2013). The AMEC 2013 report indicated that the existing KS TSF has been constructed to withstand maximum credible earthquake and probable maximum flood conditions. The AMEC 2013 report concludes that in the case of a failure, a flood wave caused by failure of the KS TSF would be restricted to Thutade Lake and effects were considered negligible at Kwadacha (Fort Ware). The report concludes that in the case of a KS TSF dam breach during maximum flood conditions, there would be negligible incremental impact to water quality downstream of Thutade Lake. However, in sunny day conditions, water quality downstream of Thutade Lake may be affected. The existing KS TSF undergoes regular review by an independent geotechnical review panel. In 2012, a Dam Inundation Study (if the KS TSF failed) was commissioned at the request of TKN and the results delivered in 2013 to TKN. At the request of TKN in 2014, a third party review of the KS TSF was undertaken by Tetra Tech to complete a thorough review of the dam design, construction methodology and monitoring (during construction and ongoing present day monitoring). The Tetra Tech technical review memo was provided to TKN and in addition, a full day workshop was held with TKN representatives from the EMC, Tetra Tech representatives, AuRico's dam engineering firm (AMEC) and AuRico. With respect to the proposed KUG Project, it will deposit waste rock and tailings into the existing KS open pit, and this location is referred to as the KUG TSF. In order to have sufficient capacity for tailings, waste rock, free water and flood storage, a dam will be constructed (East Dam) for the TSF. The East Dam will be constructed to meet or exceed Canadian Dam Association (CDA) Dam Safety Guidelines (2007; revised 2013) as well as requirements outlined in the *Mines Act* (1996).	TKDN • Tsay Keh Dene community meeting (July 7, 2015) TLFN • TLFN community meeting (Nov. 13, 2014) as summarized in TKN-prepared meeting notes dated Nov. 26, 2014

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Accidents and Malfunctions *(cont'd)*		
Potential for a failure of the Kemess South (KS) TSF on water quality *(cont'd)*	Potential risks and consequence of a dam failure for the KUG TSF East Dam are assessed in Chapter 22 (Accidents and Malfunctions) of the Application. This chapter indicates that the likelihood of a breach/failure of the East Dam is rare, the lowest possible likelihood category. The consequences for a failure of the East Dam was rated as severe because of the high biophysical and cultural values, identified by TKN First Nations, associated with Kemess and Attichika creeks and Thutade Lake. While a failure of the East Dam would release substantially lower amounts of water and tailings compared to a failure of the KS TSF, an East Dam failure would affect surface hydrology, surface water quality, wetlands, listed ecosystems, fish and aquatic habitat, western toad, and current use of lands for traditional purposes. There would be no risk of a failure until at least year 9 of operations when the East Dam will be required to commence to retain water and tailings within the KUG TSF. At closure (following year 13 of Operations), the East Dam will be closed to minimize the risk of and consequence from a failure. In the event of a failure, the Emergency Response Plan and Environmental Emergency, Spill, and Hazardous Materials Plan described in Section 24.5 and 24.6, respectively.	
Potential for accidents and malfunctions to occur during Operations and Post-Closure	Potential for accidents and malfunctions during all phases of the Project are assessed in Chapter 22 (Accidents and Malfunctions). The chapter concludes that one failure mode of relevance to the environment has associated risk event rated as being high risk (i.e., failure of the East Dam); three failure modes were assessed to have risk events to be moderate risk (i.e., leak/spill of hazardous substances stored on-site; leak/spill during road, air, or water transport; fires or explosions) and eight failure modes were classified as having risk events of low risk (i.e., discharge of off-specification effluent from treatment plant; construction or operation of underground facilities; waste rock dump or stockpile failure; inrush/inundation to underground mine, ground instability or failure; air blast in underground mine; and fly rock from blasting). In the scenario of a rare dam failure, although the potential for loss of human life is low, the risk to the Kemess Creek and downstream watersheds is high. In the rare event of a failure of the East Dam, there would be effects to surface hydrology, surface water quality, wetlands, listed ecosystems, fish and aquatic habitat, and western toad, and current use of lands for traditional purposes.	KwN • Dena Kayeh Institute comments on behalf of Kwadacha First Nation outlined in the TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Accidents and Malfunctions *(cont'd)*		
Potential for accidents and malfunctions to occur during Operations and Post-Closure *(cont'd)*	There would be no risk of a failure until at least year 9 of operations when the East Dam will be required to commence to retain water and tailings within the KUG TSF. At closure (following year 13 of Operations), the East Dam will be closed to minimize the risk of and consequence from a failure. In the event of a failure, the Emergency Response Plan and Environmental Emergency, Spill, and Hazardous Materials Plan described in Section 24.5 and 24.6, respectively. The KUG TSF East Dam will be constructed to meet or exceed CDA Dam Safety Guidelines (2007; revised 2013) as well as requirements outlined in the *Mines Act* (1996). Although the East Dam falls under a "very high" classification, the most stringent flood and earthquake criteria have been adopted for the design of the East Dam which would satisfy the "extreme" classification.	
Risk and consequences of the dam breaking and preventative monitoring including risks of seismic activity	The KUG TSF East Dam will be constructed to meet Canadian Dam Association guidelines (2007; revised 2013) as well as requirements outlined in the *Mines Act* (1996). The likelihood of a KUG TSF East Dam failure would be rare given the engineering safeguards and mitigation measures that would be put in place. The most stringent flood and earthquake criteria have been adopted for the design of the East Dam which satisfy the "extreme" classification. Potential for accidents and malfunctions during all project phases are assessed in Chapter 22 (Accidents and Malfunctions). The chapter concludes that in the rare event of a failure of the East Dam, there would be effects to surface hydrology, surface water quality, wetlands, listed ecosystems, fish and aquatic habitat, and western toad, and current use of lands for traditional purposes. The risks to the Project from seismic activity, including the TSF facility, are assessed in Chapter 23 (Effects of the Environment on the Project). This chapter indicates that the Project has a low risk of damage due to a seismic event. In the event of an earthquake, potential effects include potential damage to infrastructure and compromised worker safety, limited interruption to delivery of materials and personnel to mine site and potential subsidence. The assessment on the effects of the environment on the Project did not identify potential dam breach as a result of seismic activity.	TKN • Tse Keh Nay Annual Gathering in Moose Valley (August 16, 2010) as outlined in the TKN memo to AuRico (Dec. 10, 2014) KwN • Kwadacha Community Meeting in Fort Ware (April 7, 2011) as outlined in the TKN memo to AuRico (Dec. 10, 2014) TLFN • Takla Landing community meeting (Mar. 16, 2011)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Accidents and Malfunctions *(cont'd)*		
Safety of mine design	AuRico is committed to providing a safe working environment. The feasibility study for the KUG Project (SRK 2013) includes a number of safety features that have been incorporated into the design of the mine, including the underground mine declines will have a dedicated ventilation system separate from the underground mine, two dewatering pumps (only one pump will be used at any one time with the other available as back-up), and the access road would be within a maximum 10% gradient. The *Mines Act* (1996) Health, Safety and Reclamation Code for Mines in British Columbia (2008) governs worker health and safety at mine sites. AuRico will be required to meet the requirements in the *Mines Act* and Code and these requirements will be reflected in the permit that will be required to develop and operate the mine. Chapter 24.12 Occupational Health and Safety Plan of the Application provides the framework for health and safety for the KUG Project.	TKDN • TKDN community meeting (Nov. 6, 2014) as summarized in TKN-prepared meeting notes dated Nov. 26, 2014
Safety of TSF dam and likelihood of an accident	The Project's plan to use the KS open pit for KUG tailings storage aligns with the preferred tailings disposal method identified in the Independent Expert Engineering Investigation and Review Panel (IEEIRP 2015). Using the existing open pit has reduced risk as the KUG TSF site as the mine waste and tailings will be entirely contained within bedrock. In order to have sufficient capacity for tailings, waste rock, free water and flood storage, the Project will develop the KUG TSF East Dam. The KUG TSF East Dam will be constructed to meet CDA Dam Safety Guidelines (2007; revised 2013) as well as requirements outlined in the *Mines Act* (1996). The Project has applied a robust dam design with a high factor of safety and downstream is supported by compacted rock fill. The most stringent flood and earthquake criteria have been adopted for the design of the East Dam which satisfy the "extreme" classification. The likelihood of dam failure would be rare given the engineering safeguards and mitigation measures put in place. Despite the rare event of a dam breach, potential risks and consequences of such an event has been described in Chapter 22 (Accidents and Malfunctions), including consideration of potential environmental, social, heritage and health effects. In the rare event of a failure of the dam, there would expected to be effects to surface hydrology, surface water quality, wetlands, listed ecosystems, fish and aquatic habitat, and western toad, and current use of lands and resources for traditional purposes within Kemess Creek, Attichika Creek, and potentially Thutade Lake..	TLFN • Takla Lake Community Meeting (Nov. 13, 2014) KwN • Kwadacha Community Meeting (Nov. 5, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Air Quality		
Information about sources of dust fall, dust fall patterns, and types and concentrations of metals in dust	The Project will result in the generation and airborne transport of fugitive dust particles. Fugitive dust sources may include unpaved road dust, bulldozing, grading and stockpiling. Airborne transport of fugitive, point and area source and re-entrained road dust, and resultant deposition rates were modelled using a CALPUFF dispersion model pursuant to BC Ministry of Environment (MOE) Guidelines for Air Quality Dispersion Modelling in British Columbia (BC MOE 2008b) for the Construction, Operations, Closure and Post-Closure phases of the KUG Project. The model domain was 20 kilometres (km) east to west and 30 km south to north centred at the process plant and the subsidence cone areas (illustrated in Figure 7.1-1). The air quality predictive study (sections 7.1.6.1 and 7.1.6.2 of Section 7.1, Air Quality), predicted (modelled) 30-day dust deposition concentrations were well below the BC MOE's objectives. Actual deposition rates of nitrogen oxide (NO_2) sulphur dioxide (SO_2), carbon monoxide (CO), total suspended particulates (TSP) matte, particulate matter (PM_{10}), respirable particulate matter ($PM_{2.5}$), and dust deposition during Construction and Operations are presented in Sections 7.1.6.1 and 7.1.6.2. While total dustfall and cumulative depositions of dust are provided in sections 7.1.6.1 and 7.1.6.2, mass fractions of metals in dustfall, by particle size class and source were not determined. Therefore deposition rates of metals were not determined, however analyses of metals could be performed on dustfall samples, and mitigation measures invoked, if as yet to be determined limits for specific metals of concern are exceeded.	KwN • Dena Kayeh Institute comments on behalf of KwN, as outlined in the TKN memo to AuRico (Dec. 10, 2014) TKDN • Tsay Keh Dene community meeting (July 7, 2015)
Closure		
Concern that the Project will leave a hole in the ground that will not be reclaimed	The proposed Project is an underground mine, and will not create an open pit. The Project will disturb approximately 100 hectare (ha), including a 35 ha subsidence zone, or crater, above the ore body. In the base of the subsidence zone, a small lake is expected to form once the groundwater table rebounds to equilibrium conditions during Closure. The existing KS open pit will be filled using tailings and waste rock excavated from the KUG Project (i.e., the open pit will serve as the KUG TSF). At Closure, the Project's tailings beach will be reclaimed; a small pond will remain which will decant to creeks when the water quality is suitable to do so.	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011), as outlined in the TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Closure *(cont'd)*		
Effectiveness of restoration techniques employed and the productivity of soil in reclaimed areas	The Project has made a conscious effort to minimize land clearing to the areas necessary to develop the mine. The site will be reclaimed to as natural a state as practical on completion of mining activities. Exposed soil surfaces will be re-vegetated during the appropriate growing season and conditions using seeds (and/or plants) suitable for the local area and ecosystems to avoid erosion and sedimentation, introduction of invasive plants, and to facilitate the re-establishment of ecological functions in the affected areas. Monitoring of cleared sites during Closure will be conducted on a regular basis to ensure they are re vegetated (1) with seeds (and/or plants) suitable for the local area and ecosystems; (2) during the appropriate growing season and conditions to ensure maximum survival rate and to avoid establishment of invasive plants; and (3) to facilitate the re-establishment of ecological functions and their associated attributes (e.g., species diversity and productivity). In the Post-Closure phase, reclamation monitoring will occur for a further four years. Reclamation and soil handling activities are described in the Closure and Reclamation Plan (Section 6.6.1.1) and Soil Handling Management Plan (Section 23.13).	TKN • Chu Cho Terrestrial Monitoring Plan provided (Mar. 30, 2015)
Long-term environmental effects	'Duration' is one of the criteria used to assess the significance of residual and cumulative effects (as defined in Chapter 8, Effects Assessment Methodology). 'Duration' refers to the length of time a potential effect lasts; the duration of an effect can be short-term to long-term. A summary of potential residual effects is presented in Chapter 25, Summary and Conclusions. Monitoring activities will continue for up to 10 years after Closure and longer in the case of the subsidence zone where rebound of the water table to equilibrium conditions may take up to 40 years. The Closure and Reclamation Plan (Chapter 6, Closure and Reclamation) provides a summary of the proposed Post-Closure monitoring activities.	TKDN • Tsay Keh Community Meeting, (Apr. 6, 2011) as outlined in the TKN memo to AuRico (Dec. 10, 2014)
Need for responsible care and maintenance of the mine post-closure	Provincial legislated requirements for mine reclamation are outlined in the *Mines Act* (1996) and Health, Safety and Reclamation Code (2008) and the *Environmental Management Act* (2003). The *Fisheries Act* (1985) and Metal Mining Effluent Regulations [MMER] (2002) require that any closure activities are conducted in a manner that prevents introduction of substances into the receiving environment that may have deleterious effects on fisheries resources. The Project's Reclamation and Closure Plan (RCP) addresses new disturbances that will be created by the Project.	TKDN • TKDN community meeting (Nov. 6, 2014), as summarized in TKN-prepared meeting notes dated Nov. 26, 2014

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Closure *(cont'd)*		
Need for responsible care and maintenance of the mine post-closure *(cont'd)*	Following Closure and Reclamation, the underground mine will continue to flood until the water table rebounds to stable elevation. Water quality and other environmental monitoring will continue until the receiving environment is stable and is at acceptable levels. Reclaimed areas will be monitored to assess the effectiveness of the reclamation for controlling erosion and sedimentation, and (where appropriate) for re-vegetation success. The subsidence zone resulting from underground mining will be monitored during the Post-Closure phase. Post-Closure maintenance will focus on long-term stabilization of exposed erodible materials. Once Post-Closure monitoring demonstrates that objectives have been met and discharges meet guidelines, further decommissioning of the water treatment plant and associated site infrastructure will occur. To ensure proper function and mitigation of environmental effects, monitoring and maintenance of closed facilities and structures will continue through the Post-Closure phase. The Post-Closure phase is anticipated to last 40 years. Road maintenance will be required to access areas for monitoring and for maintenance of water management infrastructure (e.g. diversions) required during the Closure phase.	
Need to monitor the entire area surrounding Project area, not just the mine site	The spatial extent of monitoring activities will extend beyond the mine site. For example, water quality monitoring stations will be placed downstream of the Project. The Environmental Management and Monitoring Plans (EMP) (Chapter 24) provide details on the monitoring and management plans that will provide the basis for monitoring during Operations, Closure and Post-Closure phases.	TLFN • Takla Landing Community Meeting (Mar. 16, 2011)
Preference for a collaborative approach to monitoring	Since 2012, TKN has filled two seasonal environmental monitor positions at KS, staffed by members from TKDN and TLFN. Additionally, TKDN undertook water monitoring and invasive plant species monitoring programs in 2014. AuRico is and continues to be committed to discussing ways to collaborate on environmental monitoring with the Environmental Management Committee (EMC) as well as at the Impact Benefits Agreement negotiations underway.	KwN • EMC meeting (July 8, 2014)
Responsibility for clean-up and monitoring	AuRico will be responsible for remediation activities required in the event of accidental spills or failure of equipment or infrastructure. In the event of an accidental spill, AuRico will conduct soil sampling remediation as well as post-remediation groundwater monitoring to ensure satisfactory clean-up.	TLFN • Takla Landing Community meeting (November 13, 2014), as summarized in TKN-prepared meeting notes dated Nov. 26, 2014

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation		
Aboriginal involvement in the Environmental Assessment (EA) process	AuRico has and continues to engage the TKN throughout the EA process and plans to continue to do so throughout the Application Review Period. AuRico initiated consultation activities with TKN First Nations in October 2010, at which time the proposed KUG Project was described. At this time, AuRico also started to discuss TKN's preferred approach to consultation, including possible agreements with TKN First Nations related to the proposed Project. In 2011, AuRico held a series of community meetings in Takla Landing, Kwadacha, and Tsay Keh, which provided an opportunity for AuRico to present the KUG Project, discuss potential environmental concerns, as well as to discuss training, jobs and business opportunities. In June 2012, AuRico and TKN signed an Interim Measures Agreement (IMA) which guides consultation and engagement activities between AuRico and the three TKN members. As part of the IMA, a Senior Implementation Committee (SIC) was established, which is responsible for IMA implementation, environmental management provisions, employment (including reviewing barriers for Aboriginal employment), and business opportunities; at this time, the Environmental Management Committee (EMC) was also established to identify specific studies and issues related to the environment (including wildlife, fish, and fish habitat) as well as provide general project updates to the Chiefs and community members. AuRico and TKN have committed to work together in an open, transparent manner on the Project, including incorporation of TKN perspectives. One of the conditions of the IMA was to establish an Environmental Assessment Conduct Agreement (EACA), if the Project entered the environmental assessment (EA) process. The agreement was completed in June 2014. The EACA outlines how AuRico and TKN will work together during the EA process and how AuRico will support TKN's review of the Application. The Agreement provides for funding for TKN to hire a Technical Coordinator and other technical advisors when required to assist TKN in their review of the Application and other documents produced as part of the EA process. It also outlines opportunities for TKN to review documents (e.g., draft AIR and Application) before they are provided to the BC EAO. AuRico has also engaged Aboriginal groups, as per the direction in the Section 11 and Section 13 orders issued by the British Columbia Environmental Assessment Office (BC EAO) in May 2014, and according to its Aboriginal Consultation Plan (Appendix 3-G). Section 3.6 of Chapter 3 (Information Distribution and Consultation) describes AuRico's efforts to engage and consult with Aboriginal groups.	KwN • Dena Kayeh Institute comments on behalf of KwN as summarize in TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Aboriginal involvement in the Environmental Assessment (EA) process *(cont'd)*	KwN, TLFN, and TKDN are members of the EAO Working Group for the EA process. AuRico has made efforts to consult with the Schedule C Aboriginal groups which include: Wilp Nii Kyap of the Gitxsan Nation, the Treaty 8 First Nations and the Métis Nation of British Columbia (MNBC). A record of AuRico's communications with these groups is included in Appendix 3-D.	
Broad community engagement including a presentation to the community and information about current and future plans	Since 2011, AuRico has and continues to hold community meetings in Aboriginal and non-Aboriginal communities. Section 3.6.4.11 of Chapter 3 lists the community meetings held in TKN communities, and are listed below (date and location): • March 1, 2011 in Tsay Keh • March 16, 2011 in Tsay Keh • March 15, 2011 in Takla Landing • March 17, 2011 in Kwadacha • April 30, 2014 in Prince George with TKN • May 5, 2014 in Kwadacha • May 6, 2014 in Tsay Keh • May 8, 2014 in Takla Landing • November 5 in 2014, Kwadacha • November 6 in 2014, Tsay Keh • November 13 in 2014, Takla Landing • July 9, 2015 in Takla Landing • July 7, 2015 in Tsay Keh • July 6, 2015 in Kwadacha Section 3.8.1.6 of Chapter 3 describes the community meetings held in non-Aboriginal communities and are listed below: • April 28, 2014 in Terrace • April 29, 2014 in Smithers • April 30, 2014 in Prince George • May 1, 2014 in Mackenzie AuRico will host additional community meetings once the Application has been submitted for formal review.	TLFN • SIC meeting (Jan. 29, 2014) TKDN • SIC meeting (Jan. 29, 2014) TKN • TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Broad community engagement including a presentation to the community and information about current and future plans *(cont'd)*	TKN and AuRico negotiated a Joint Communication Plan in February 2014, to foster a positive and respectful ongoing relationship between the parties as per the IMA. The Plan outlines goals and principles, and the audiences and strategies for engagement (e.g., community meetings, career fairs, mine site tours, the Project website, and a Project newsletter). Based on TKN suggestions about the most appropriate and effective means to share information with the First Nations and their communities over the course of the Project, the Joint Communication Plan was revised and finalized by TKN and AuRico on March 2015.	
Communication strategy around water management	AuRico engaged the TKN in the assessment of water discharge alternatives, with the aim of having the TKN involved in decision-making process and ensuring that TKN values and information were represented in the selection of the water discharge location. Starting in December 2014, AuRico met with the TKN to discuss the proposed discharge alternatives and outline the proposed methodology for assessing the discharge alternatives. AuRico presented initial water discharge findings to TKN on June 9, 2015 in a meeting in order to discuss how TKN current land and resources use information would be incorporated into the water discharge assessment. AuRico also presented to TKN the report which compiled technical, economic, environmental and social/cultural baseline information relevant to the discharge alternatives at this meeting. In July 2015 AuRico and TKN presented the water discharge alternatives at community meetings in Takla Landing, Tsay Keh, and Kwadacha, and hosted a question and answer period following the presentations to address community concerns. At the June 9, 2015 EMC meeting and July 2015 community meetings, TKN indicated their preferred discharge option was Attichika Creek due to its proximity to the Project and perception that the creek has been affected by the Kemess South Mine. AuRico hosted a workshop in Vancouver on July 16, 2015 with TKN and representatives of the provincial (i.e., EAO and Ministry of Forests, Lands and Natural Resources Office; FLNRO) and federal governments (i.e., Environment Canada). The workshop began with a review of the alternatives assessment process to date, and summaries of the community meetings. AuRico presented preliminary water quality monitoring results, as well as details about water treatment options and the design of the discharge infrastructure. Based on the outcomes of the alternatives assessment process and further analysis, AuRico selected Attichika Creek (the TKN's preferred alternative) as the discharge location. On November 4, 2015 AuRico met with TKN to present Attichika Creek water quality discharge predictions. This included presentations on the optimization of the Attichika Creek alternative, water quality modelling for Attichika Creek, the removal of metals and selenium.	TLFN • SIC meeting (Mar. 25, 2015 TKDN • SIC meeting (Mar. 25, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Communication strategy around water management *(cont'd)*	The alternatives assessment process is further described in the Water Management Alternatives Assessment report (Appendix 4-D), which includes a summary of TKN engagement related to water management and discharge alternatives.	
Compensation is required if food sources are contaminated because of the Project	AuRico does not anticipate the Project to contaminate country foods (i.e., large terrestrial mammal, small terrestrial mammal, bird, fish, and plants). In order to make this conclusion, AuRico undertook a human health assessment (Chapter 18, Human Health), which identifies potential health risks to the general population and to Aboriginal groups, including potential changes in the quality of country foods. The Project-related human health risk assessment (HHRA) (Appendix 18-B) assessed the risk associated with COPCs in drinking water quality, air quality, country foods quality, and noise levels during the Construction and Operations phases; the assessment was designed following methodology outlined by Health Canada. The HHRA included the assessment of deposition of dustfall (containing metals) onto plant surfaces as well as from dustfall onto soil and the subsequent uptake into plants, which are then consumed by country food species. Metals that bio-accumulate were included in the assessment. Chapter 18 concluded that the risk to human health during the Construction and Operations phases was similar to baseline conditions, and residual effects to human health were not identified. Therefore, the Project does not anticipated effects the quality country foods.	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011)
Concern about ensuring there is sufficient time for TKN review baseline studies	Through the EMC, TKN has had the opportunity to review draft baseline reports that support the Application (listed in Table 3.6-1 of Chapter 3, Information Distribution and Consultation). Generally, AuRico allowed three weeks for review of draft baseline reports, however, AuRico took a flexible approach to allow TKN sufficient time to review and comment on baseline studies. In many cases, presentations were given to the EMC members about the baseline reports to provide additional understanding of the reports. AuRico considered and responded to comments from TKN about these baseline reports and, as necessary, reports were revised to address the comments; in most cases, revised copies of the reports were shared with TKN. The tracking tables have been provided to TKN for review and comment. The tables have not been appended to the Application but can be made available upon request by the BC EAO or CEA Agency.	TKN • EMC meeting (Dec. 9, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Differentiation between communications plan and engagement strategy and need for both	The IMA, signed by AuRico and the TKN in June 2012, guides consultation and engagement activities. Building on principles in the IMA, in February 2014, AuRico and TKN negotiated a Joint Communication Plan to foster a positive and respectful relationship between TKN and AuRico. The plan outlines goals and principles, the audiences and strategies for engagement such as community meetings, career fairs, mine site tours, the Project website, and a Project newsletter. Based on TKN suggestions about the most appropriate and effective means to share information with their communities over the course of the Project, the Joint Communication Plan was revised and finalized by TKN and AuRico on March 2015. The updated Joint Communication Plan includes revised timelines and dates for community meetings and notes AuRico's commitment to attend career fairs in the communities at TKN's request. The Joint Communication Plan applies during the EA process as well as post-EA consultation and negotiations. The plan also provides the framework for communications related to potential future projects and endeavors within TKN First Nations traditional territories where AuRico has an interest. Additionally, as required by the EAO Section 11 Order, AuRico developed an Aboriginal Consultation Plan (ACP; Appendix 3-G). The draft ACP was provided to TKN on August 26, 2014, and comments were incorporated into the final version, which was provided to the BC EAO on December 18, 2014.	TLFN • Meeting (Dec. 17, 2014)
Insufficient time for community to review and consider the Thutade Lake discharge option prior to Application submission	AuRico engaged TKN in the assessment of water discharge alternatives, with the aim of having TKN involved in decision-making process and ensuring that TKN values and information were represented in the selection of the water discharge location. To begin this process, AuRico met with TKN on December 9, 2014 to discuss the history and proposed water management strategies at the Kemess site. AuRico described the proposed discharge alternatives and outlined the proposed methodology for assessing the discharge alternatives. AuRico presented initial water discharge findings to TKN on June 9, 2015 in a meeting in order to discuss how TKN current land and resources use information would be incorporated into the water discharge assessment. AuRico also presented to TKN the report which compiled technical, economic, environmental and social/cultural baseline information relevant to the discharge alternatives at this meeting. In July 2015 AuRico and TKN presented the water discharge alternatives at community meetings in Takla Landing, Tsay Keh, and Kwadacha, and hosted a question and answer period to address community concerns. Overarching themes of the feedback from the	TLFN • meeting with TKN (Dec. 9, 2014) KwN • meeting with TKN (Dec. 9, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Insufficient time for community to review and consider the Thutade Lake discharge option prior to Application submission *(cont'd)*	TKN included a preference for the Attichika Creek option due to its proximity to the Project and existing perceptions that the creek has been affected by the KS Mine. AuRico hosted a workshop in Vancouver on July 16, 2015 with TKN and representatives of the provincial (i.e., EAO and FLNRO) and federal governments (i.e., Environment Canada). The workshop included a review of the alternatives assessment process to date, and summaries of the community meetings. AuRico presented preliminary water quality monitoring results, as well as details about water treatment options and the design of the discharge infrastructure. On November 4, 2015 AuRico met with TKN to present Attichika Creek water quality discharge predictions. This included presentations on the optimization of the Attichika Creek alternative, water quality modelling for Attichika Creek, the removal of metals and selenium. Based on the outcomes of the alternatives assessment process and further analysis, AuRico selected Attichika Creek (TKN's preferred alternative) as the discharge location (Appendix 4-G, Water Management Alternatives Assessment).	
Interest in being consulted, and in community participation in the EA process including studies and monitoring	AuRico initiated consultation activities with TKN communities in October 2010, at which time the proposed Project was described. At this time, AuRico started to discuss TKN's preferred approach to consultation, including possible agreements with TKN related to the proposed Project. In 2011, AuRico held a series of community meetings in Takla Landing, Kwadacha, and Tsay Keh, which provided an opportunity for AuRico to present the Project, discuss potential environmental concerns, as well as to discuss training, jobs and business opportunities. In June 2012, AuRico and TKN signed an IMA, which guides consultation and engagement activities between AuRico and TKN First Nations. As part of the IMA, the SIC was established, which is responsible for IMA implementation, environmental management provisions, employment (including reviewing barriers for Aboriginal employment), and business opportunities; at this time, the EMC was also established to identify specific studies and issues related to the environment (including wildlife, fish, and fish habitat) as well as provide general project updates to the Chiefs and community members. AuRico and TKN have committed to work together in an open, transparent manner on the Project, including incorporation of TKN perspectives.	TKN • TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Interest in being consulted, and in community participation in the EA process including studies and monitoring *(cont'd)*	Through the EMC, TKN has had the opportunity to review draft baseline reports that support the Application (Table 3.6-1 of Chapter 3). In many cases, presentations were also given to the EMC members about the baseline reports. AuRico considered and responded to comments from TKN on baseline reports and reports were revised as necessary to address the comments, and in most cases, revised copies of the reports were shared with TKN for further review. The tracking tables have been provided to TKN for review and comment. AuRico has taken a flexible approach to allow TKN sufficient time to review baseline study reports. The tables have not been appended to the Application but can be made available upon request by the BC EAO or CEA Agency. Pursuant to the IMA, AuRico has funded several studies based on TKN requests, including an Archaeological Overview Assessment (AOA), and the Tse Keh Nay Kemess Underground Traditional Knowledge and Land Use Study (TK/TLUS) (Crossroads 2015) (Appendix 20-A), both of which included TKN involvement. AuRico has also funded several studies and programs at the request of TKN including, but not limited to, TKN involvement in a caribou collar program, establishment of a Cultural Data Base in each TKN community, TLFN's fish passage/culvert assessment along the Omineca Resource Access Road (ORAR) (carried out in 2014), TKDN's water monitoring program and Invasive Plant Species programs (in 2014) and TKDN's water quality and terrestrial monitoring programs (carried out in 2015). Additionally, as required by the EAO Section 11 Order, AuRico developed an ACP (Appendix 3-G). The draft ACP was provided to TKN on August 26, 2014, and comments were incorporated into the final version, which was provided to the EAO on December 18, 2014. AuRico has and continues to implement the consultation activities outlined in the ACP. KwN, TLFN, and TDFN are members of the BC EAO Working Group for the EA process.	
Management and monitoring program for the ORAR	AuRico provided TKN with a summary of activities that comprised the road maintenance program during Operations (2011 and earlier) on July 29, 2014. The ORAR is outside the scope of the Project; however, as part of the Access Management Plan (Chapter 24.2, Environmental Management Plans), AuRico has agreed to contribute to the collection of information that would support an informed discussion on the need for and scope of potential adaptive management measures for wildlife along the ORAR. TLFN has been part of discussions between AuRico and the ministry and this approach.	TKN • EMC meeting (July 8, 2014) • E-mail (June 24, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Negotiation of an agreement with trapline holders	The Project and portions of the ORAR and transmission line fall within trapline tenure T739T006. There are five trapline cabins and two hunting cabins within the general Project area (Figure 1.4-6). The nearest registered trapline cabin is located 19 km southeast of the Project, and the closest hunting cabin is located 37 km southeast of the Project. AuRico is unaware of any other seasonal or temporary residences located within the Project Area. During the operation of the KS Mine, Northgate Minerals Exploration reached a compensation agreement with the holder of Trapline TR0739T006 in 2001. A second agreement was negotiated in 2005 for the proposed Kemess North Project. AuRico completed negotiations on an agreement with this trapline holder in December 2014 for compensation related to the KUG Project.	*This issue was the topic of many discussions, including, but not limited to:* TKN • meeting (Jan. 31, 2013) Trapline #0739T006 • Meetings (July 12, 2012, May 14, 2013) • e-mail (Feb. 25, 2014) TLFN • Takla Lake Community Meeting (Nov. 13, 2014)
Negotiation of an Exploration Agreement with TKN to cover exploration in areas outside of those covered by the IMA	AuRico and TKN have signed two Exploration Agreements related to the 2013 and 2014 field seasons, and 2015 and 2016 field seasons (Section 3.6.4.6 of Chapter 3, Information Disclosure and Consultation).	TKN • Meetings (Jan. 31, 2013, Apr. 10, 2013)
Negotiation of an Impact Benefit Agreement (IBA) with TKN	AuRico and TKN are in the process of negotiating an IBA that will be ratified by the each of the TKN First Nation communities.	TKN • Meeting (Jan. 31, 2013)
Request for annual reports summarizing environmental programs	Environmental monitoring data will be reported to the appropriate government agencies in accordance with legislative and permit requirements (Chapter 24, Environmental Management Plans). Each Environmental Management Plan (EMP) describes the necessary reporting. TKN is presently receiving and historically has received the annual monitoring reports on Kemess South filed with government agencies.	TKN • EMC meeting (May 31, 2013)
Request for consultation regarding traditional territory and Aitken Lake trapline	A TKDN hereditary chief has written to AuRico and asserted rights to the Kemess area The hereditary chief has also denied the authority of the TKDN Chief and entire nation. TKN nations have indicated that they disagree with this assertion, and TKN Chiefs have written a letter to BC EAO indicating their disagreement with these assertions. BC EAO is drafting a letter to respond to the hereditary chief. AuRico has and continues follow the guidance of the BC EAO Section 11 and 13 orders, which outlines requirements to consult with Schedule B Aboriginal groups (i.e., TLFN, Tsay Key Dene Nation and KwN, also referred to as TKN members) and Schedule C Aboriginal groups.	TKDN member representing a Hereditary Chief • Multiple communications between August 2014 and October 2015

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Request for more accessible information about the Project at the community level and translators/interpreters for community meetings	AuRico initiated consultation activities with TKN communities in October 2010, at which time the proposed Project was described. At this time, AuRico started to discuss TKN's preferred approach to consultation, including possible agreements with TKN related to the proposed Project. In June 2012, AuRico and TKN signed an IMA which guides consultation and engagement activities between AuRico and the three TKN members. Since 2011, AuRico has and continues to hold community meetings in Takla Landing, Kwadacha, and Tsay Keh, which provide opportunities for AuRico to present updates on the Project or discuss particular topics (e.g., water discharge alternatives), discuss potential environmental concerns, as well as to discuss training, jobs and business opportunities. As described in section 3.5 of Chapter 3, AuRico developed and distributed a variety of Project-related information to help raise awareness and understanding about the Project. For example, in collaboration with the EMC members, AuRico has produced a 2015 EMC Newsletter (Appendix 3-B) and aims to continue using this, as well as other outreach materials to inform TKN communities about the Project. The type and content of material to share with communities is approved by the EMC committee. As outlined in AuRico's ACP and the Public Consultation Plan, consultation and engagement activities are guided by several principles and objectives including: to distribute Project information and provide engagement opportunities in a timely and accessible manner; provide sufficient time for Aboriginal groups, municipalities, and members of the public to review and comment on Project documents; clearly communicate the opportunities for consultation available to Aboriginal groups and the public throughout the EA process; report on the results of consultation with government agencies, Aboriginal groups and the public; and foster long-term relationships and establish a positive community presence. In addition to complying with provincial and federal requirements related to Aboriginal and public consultation.	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011) • Tsay Keh Community Meeting (July 7, 2015) TLFN • Takla Lake Community Meeting (March 16, 2011) as summarized in TKN memo to AuRico (Dec. 10, 2014) KwN • as summarized in TKN memo to AuRico (Dec. 10, 2014)
Request for further conversation about the substitution process for the EA process	On April 8, 2014 the Canadian Environmental Assessment Agency (CEA Agency) issued a Notice of Commencement for the EA and granted substitution of the federal EA to BC (CEA Agency 2014), as set out in the Memorandum of Understanding between the CEA Agency and the EAO on Substitution of Environmental Assessments, 2013 (BC EAO and CEA Agency 2013). Among several conditions of substitution, the CEA Agency delegated procedural aspects of Aboriginal consultation to BC (as per Section 5 of the Memorandum of Understanding) and requires BC to make CEA Agency funding available to Aboriginal groups to support Aboriginal consultation during the substituted EA.	TLFN • SIC Meeting (Jan 29, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Review Kemess North panel report and hearings record specific to human health issues	On December 10, 2014 TKN provided AuRico with a memo summarizing TKN concerns related to the Project. This memo included the Kemess Mine Expansion Kemess North Gold-Copper Project – Environmental Impact Assessment Response to Review Comments (KCP 2006), which included health-related issues (e.g., water consumption in Finley River, bio-accumulation, and dustfall). AuRico reviewed this document and considered the information in the design and assessment of the Project. Chapter 18, Human Health, provides the results of the assessment on human health, and considers the health-related topics raised during the review of the Kemess North project. There were also specific working group calls with TKN and regulators and AuRico to discuss some of the human health concerns.	TKN • TKN memo to AuRico (Dec. 10, 2014) KwN • e-mail (Aug 21, 2014) TLFN • e-mail (Aug. 20, 2014)
Suggestion that each community have a "watchman" that participates in ongoing monitoring and closure activities who also reports back to the community	AuRico funded water quality (2014/2015) and terrestrial (2015) monitoring programs at KUG undertaken by TKDN . Monitoring programs for KUG have been discussed at the EMC as well as part of the IBA negotiations. Environmental monitoring data will be reported to the appropriate government agencies in accordance with legislative and permitting requirements (Chapter 24, Environmental Management Plans; EMP). Each EMP describes the necessary reporting. Ongoing monitoring reports for Kemess South are being shared with TKN.	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011)
TKN needs compete baseline information in order to review, identify gaps in the baseline data and identify concerns	Section 3.6.4.5 of Chapter 3 (Information Distribution and Consultation) describes AuRico approach for sharing draft baseline study reports and incorporating comments from Aboriginal groups. Table 3.6-1 of Chapter 3 lists the baseline study reports shared with TKN. Through the EMC, TKN has had ongoing opportunities to review and comment on draft baseline reports that support the Application. In many cases, AuRico also gave presentations to the EMC members on these baseline reports. AuRico considered and responded to comments from TKN on the baseline reports and reports were revised as necessary to address the comments. The tracking tables have been provided to TKN for review and comment. In most cases, revised copies of the reports were shared with TKN for further review. The tables have not been appended to the Application but can be made available upon request by the BC EAO or CEA Agency.	TKN • EMC meeting (Jul. 8, 2014) KwN • EMC meeting (June 11, 2014) TLFN • EMC meeting (June 11, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
TKN would like copies of all the studies that support the EA prior to submission of the Application	Section 3.6.4.5 of Chapter 3 (Information Distribution and Consultation) describes AuRico approach for sharing baseline studies and incorporating comments from Aboriginal groups. Table 3.6-1 of Chapter 3 lists the baseline study reports shared with TKN. Additionally, as part of the IMA, AuRico funded an AOA and a TK/TLUS (Crossroads 2015) (Appendix 20-A)to inform the EA, both of which included TKN participation. As outlined in section 3.6.4.7, AuRico also provided funding for the other studies and activities including, but not limited to the Proposed Kemess Underground Mine: A Socio-Economic Review of the Impacted Tse Keh Nay Communities), the Proposed Kemess Underground Mine: A Socio-Economic Review of the Impacted Tse Keh Nay Communities (SNC Lavalin 2013), the Kemess South Environmental Assessment Certificate: A Performance Review of Socio Economic Conditions (Miller 2013), Tse Keh Nay Review: State of the Baseline Data for Kemess Underground Development (Radies, McConkey, and Budhwa 2011) and the Dam Breach and Inundation Study (AMEC Environment & Infrastructure 2013). All of these reports have been shared with TKN. AuRico is also supporting a secure site for TKN to post documents related to Kemess, including those for studies that support the EA.	TKN • meeting (Apr. 10, 2013)
TKN would like to review the water quality model and the source terms	On August 26, 2014 AuRico met with a TKN First Nation technical representative (Source Environmental Associates) to discuss water related issues including baseline reports, modelling and incorporation of Kemess South data. The technical representative had several subsequent meetings with AuRico and their consultants with respect to the water quality model and the sources terms (see Appendix 3-D-1 Summary of AuRico's Communications with Tse Keh Nay). Appendix 4-D provides an overview of the water discharge alternatives assessment and Section 3.6.4.7 of Chapter 3 (Information Distribution and Consultation) summarizes TKN's involvement in the assessment process to date and planned consultations during the Application review stage.	TKN • WG meeting (Aug. 5, 2014)
Water management options	AuRico engaged TKN in the assessment of water discharge alternatives, and involved TKN in the decision-making process to ensure that TKN values and information were represented in the selection of the water discharge location (Section 3.6.4.7 of Chapter 3, Information Distribution and Consultation). AuRico initially met with TKN on December 9, 2014 to discuss the history and proposed water management strategies for the KUG Project. All parties agreed to align the alternatives assessment process with the methods described by Environment Canada in the Guidelines for the Assessment of	TKN; multiple instances including: • site visit (Sep. 9, 2014) • meeting (Dec. 9, 2014) • email (Feb. 2, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Consultation *(cont'd)*		
Water management options *(cont'd)*	Alternatives for Mine Waste Disposal. AuRico presented initial water discharge findings to TKN on June 9, 2015 in a meeting in order to discuss how TKN current land and resources use information would be incorporated into the water discharge assessment. In July 2015 TKN hosted community meetings on the topic in Kwadacha, Tsay Keh, and Takla Landing which AuRico attended. On July 16, 2015 AuRico hosted a workshop for TKN and government agencies to preliminary water quality monitoring results, as well as details about water treatment options and the design of the discharge infrastructure. On November 4, 2015 AuRico met with TKN to present Attichika Creek water quality discharge predictions. Based on the outcomes of the alternatives assessment process and further analysis, AuRico selected Attichika Creek (the TKN's preferred alternative) as the discharge location. The alternatives assessment process is further described in the Water Management Alternatives Assessment report (Appendix 4-D).	
Review of the former maintenance schedule for the road	On July 29, 2014, AuRico provided TKN with a summary of activities undertaken for the road maintenance program during Kemess South Mine operations (2011 and earlier).	TLFN • Meeting (Apr. 10, 2013)
Cumulative Effects		
Consideration of cumulative environmental effects	Cumulative effects are the result of Project residual effects interacting with past, present and future projects and activities (CEA Agency, 2014a). The methodology for assessing cumulative environmental effects (CEA) is described in Chapter 8, (Effects Assessment Methodology). Guidance documents from the EAO and the CEA Agency were referenced for developing the methodology for the Project. The past, present and future activities and projects considered in the CEA are described in Section 8.7.1.3 and are illustrated in Figure 8.7-1. A summary of potential cumulative effects is presented in Chapter 25, Summary and Conclusions.	KwN • e-mail (Aug. 21, 2014) TKDN • Tsay Keh Community Meeting (Apr. 6, 2011) TKN • TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Current Use of Lands and Resources for Traditional Purposes		
Note: The proponent funded the TK/TLUS (2015) which was managed by TKN. It identifies areas used by the Sekani people within the Current Use of Lands and Resources for Traditional Purposes LSA and RSA.		
A First Nations Land Use Plan needs to be completed prior to additional industrial development in the area	The development of a First Nations Land Use Plan is beyond the scope of the Project and the EA process.	KwN • Kwadacha Community Meeting (Apr. 7, 2011)
Cultural values associated with Thutade Lake and Finlay River	Potential effects to intangible cultural heritage, such as cultural values associated with physical locations, are assessed in Chapter 20 (Effects of Changes to the Environment on Aboriginal People). Chapter 20 concludes that no effects are anticipated to spiritual and cultural values associated with Thutade Lake or Finlay River, as no physical changes to terrestrial or aquatic environments for Thutade Lake or Finlay River are expected. Also no changes in access to Thutade Lake or Finlay River are anticipated. Although minimal auditory or visual changes are anticipated, the assessment indicated that these changes are not expected to affect users of Thutade Lake or Finlay River.	KwN • Water management options meeting (Dec. 9, 2014)
Decreased quality of furs trapped on traplines that might be affected by the Project and subsequent decreases in economic value of furs	The assessment of effects on Current Use of Lands and Resources for Traditional Purposes, including trapping, is described in Chapter 20 (Effects of Changes to the Environment on Aboriginal People). Chapter 20 concludes that localised residual effects to the abundance and distribution of furbearers (including marten, marmot, and wolverine) are anticipated within the Current Use of Lands and Resources for Traditional Purposes Local Study Area (LSA) and may affect trapping activities for trapline TR0739T006. AuRico has negotiated and signed an updated agreement with the holders of trapline TR0739T006 to mitigate potential environmental or economic effects of the Project on this trapline (Section 20.6.2). Effects on Aboriginal traplines in the Current Use of Lands and Resources for Traditional Purposes regional study area (RSA) are not anticipated. Chapter 20 notes that trapping has declined in the area in recent years due to the reduced value of furs (Section 20.4.4.1). Economic effects due to decreases in income from the sale of furs are not anticipated.	KwN • Kwadacha Community Meeting (Nov. 5, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Current Use of Lands and Resources for Traditional Purposes *(cont'd)*		
Effects of First Nations members avoiding areas where exploration or other industrial activities are taking place	The potential for Aboriginal group members to avoid certain areas in their harvesting or other use activities is considered in Chapter 20 (Effects of Changes to the Environment on Aboriginal People). The assessment considered potential changes due to noise, air quality, visual quality, or increased human presence as a result of the KUG Project. The chapter concludes that, following the implementation of mitigation measures, no residual effect to the quality of experience while using the land and resources (Section 20.6.1.2). Therefore, the Project is not predicted to cause Aboriginal people to avoid areas currently utilized for harvesting or other purposes.	KwN • EMC meeting (June 11, 2014)
Effects to Aboriginal hunting, trapping, and fishing as a result of potential increase in hunting and poaching in the Project area due to all season road access	The potential effects to hunting, trapping, and fishing due to increased harvesting pressure are assessed in Chapter 20 (Effects of Changes to the Environment on Aboriginal People). The assessment concludes that, following the implementation of mitigation measures, there is potential for residual effects to TKN hunting and trapping due to decreases in the availability of wildlife resources in the LSA. The magnitude of impact on harvesting wildlife and fishing is considered to be local in extent, as the Project is located on a brownfield mine site with most of the activity occurring underground, reducing the potential effects for wildlife. No residual effects to fishing activities by Aboriginal groups were identified.	TLFN • TKN memo to AuRico (Dec. 10, 2014)
Effects to graveyards and spiritual sites in the Project area	There is one site (HgSq-10) located on the north shore of Amazay Lake, which may be the grave of Duncan Pierre. The site consists of a stone lined depression. It is located in the heritage RSA. TKN have identified burial sites at the northeastern end of Thutade Lake, just before its outlet into the Finlay River. Two known burial sites and a known cremation site are located at Amazay Lake (in the LSA). Burial sites are also located in Moose Valley. A respected chief from Kwadacha is buried along Bower Creek (outside the RSA) (Appendix 20-A). There are no known graveyard sites within the Current Aboriginal Use LSA and therefore no direct or indirect effects are anticipated. If as-yet unknown archaeological sites are identified within the LSA during Construction or Operations the Heritage Chance Find Procedure will be followed.	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Current Use of Lands and Resources for Traditional Purposes *(cont'd)*		
Effects to hunting, fishing, and harvesting berries and medicines in the Project area including restricting access	There has been a "no fishing and no hunting" policy at the KS Mine since 1998. Employees are not permitted to fish or hunt on or off the mine property. This policy will remain in effect. Specific bull trout staging areas are currently closed to angling, including locations within the Project Area. Chapter 20 (Effects of Changes to the Environment on Aboriginal People) concludes that following the implementation of mitigation measures, there is potential for residual effects to TKN hunting and trapping due to decreases in the availability of wildlife resources in the LSA. The assessment did not identify residual effects to fishing. No residual effects to harvesting berries and medicines are anticipated (Section 20.6.3, of Chapter 20).	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011) KwN • Kwadacha Community Meeting (July 6, 2016) TLFN • TLFN community meeting (Nov. 13, 2014) as summarized in TKN-prepared meeting notes dated Nov. 26, 2014
Effects to TKN's ability to harvest and use resources	Potential effects to TKN's ability to harvest and use resources are considered in Chapter 20 (Effects of Changes to the Environment on Aboriginal People). The assessment concludes that following the implementation of mitigation measures, there is potential for a residual effect to TKN hunting and trapping due to decreases in the availability of wildlife resources in the LSA. The magnitude of the effect is localized in extent, as the Project is located on a brownfield mine site with most of the activity occurring underground, reducing the potential for effects to wildlife. No residual effects to fishing, or harvesting berries and medicines are anticipated (Section 20.6.3).	TKN • EMC meeting (June 11, 2014) TLFN • Takla Lake Community Meeting (Nov. 13, 2014)
Identification of areas used by Sekani people in order to understand cultural impacts	The proponent funded the TK/TLUS (2015) which was managed by TKN. It identifies areas used by the Sekani people within the Current Use of Lands and Resources for Traditional Purposes LSA and RSA.	TKN • TKN memo to AuRico (Dec. 10, 2014)
Impacts to way of life should the East Dam fail and relocation be necessary	The KUG TSF East Dam will be constructed to meet or exceed Canadian Dam Association guidelines (2007; revised 2013) as well as requirements outlined in the *Mines Act* (1996). The likelihood of a KUG TSF East Dam failure would be rare given the engineering safeguards and mitigation measures put in place. While the East Dam would be classified as a "very high" consequence dam, the most stringent flood and earthquake criteria have been adopted for the design of the East Dam which satisfy the "extreme" classification.	KwN • Kwadacha Community Meeting (Apr. 7, 2011)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Current Use of Lands and Resources for Traditional Purposes *(cont'd)*		
Impacts to way of life should the East Dam fail and relocation be necessary *(cont'd)*	Potential for accidents and malfunctions during all project phases are assessed in Chapter 22 (Accidents and Malfunctions). The chapter concludes that in the rare event of a failure of the East Dam, there would be effects to current use of lands for traditional purposes within Kemess Creek, Attichika Creek, and potentially Thutade Lake. For example, immediately after the failure, it could become difficult for Aboriginal peoples to access traditional use sites in the immediate vicinity of Kemess Creek and Attichika Creek. Traditional land could be affected by changes to fish and fish habitat, and wildlife. Effects to water and soil quality due to release of water from the KUG TSF and the deposited sediment quality would be expected to affect vegetation (including harvestable plants) and animal metal contents, preventing use of these resources in affected areas. The magnitude of such changes is considered high as these areas would most likely be avoided over the long term for future cultural uses. However, the likelihood of a failure is rare. A series of monitoring and management plans, including emergency response plans, will also apply to water treatment and tailings storage over the life of the Project (including post-closure; Chapter 24, Environmental Management Plans).	
Investigation into Sekani use of the Thutade Lake region including trails, camping sites, and traditional meeting grounds at the north end of Thutade Lake is required	The proponent funded the TKN TK/TLUS (2015) which was managed by TKN, in order to identify Sekani trails, camping sites, and traditional meeting grounds, along with other places used by the Sekani for harvesting and other purposes.	TKN • TKN memo to AuRico (Dec. 10, 2014)
Long-term effects on the use of this land for traditional purposes, including how to address the fact that some impacts won't be discovered until further into the future	Potential effects to TKN use of lands and resources are considered in Chapter 20 (Effects of Changes to the Environment on Aboriginal People). The assessment concludes that following the implementation of mitigation measures, there is potential for a residual effect to TKN hunting and trapping due to decreases in the availability of wildlife resources in the LSA. This effects is anticipated to occur during the life of the Project (i.e., medium-term in duration), and partly reversible once decommissioning and reclamation activities begin. No residual effects to hunting, fishing, or harvesting berries and medicines are anticipated (Section 20.6.3) Long-term monitoring programs for wildlife and aquatics, as well as subsidence monitoring will be in place, the results of which will be shared with Aboriginal groups.	TKN • TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Current Use of Lands and Resources for Traditional Purposes *(cont'd)*		
Loss of wildlife habitat impacting ability to hunt	Potential loss of wildlife habitat is considered in Section 15.5.1 of Chapter 15 (Wildlife). The wildlife assessment concludes that there is a potential residual effect to hoary marmot due to loss of habitat. The effect is low in magnitude and restricted to the subsidence zone. The conclusions of Chapter 15 (Wildlife) were integrated into the assessment of potential effects to Aboriginal harvesting, which is presented in Section 20.6.1.3 of Chapter 20 (Effects of the Environment on Aboriginal People). Chapter 20 concludes that there is potential for a residual effect to TKN hunting and trapping activities due to reduced availability of wildlife; the magnitude is rated as low and the extent is localized (Section 20.6.3).	TLFN • Takla Landing Community Meeting (Mar. 16, 2011) • Takla Landing Community Meeting (July 9, 2015)
Perceived risk of toxicology could result in a decrease in hunting activity and game consumption	Potential health risks to Aboriginal groups due to country foods consumption are assessed in the human health EA (Chapter 18, Human Health). The assessment concludes that the Project is not anticipated to affect the quality country foods. The potential for decreased harvesting activity and game consumption due to perceived risks of contamination is assessed in section 20.7.1.2 of Chapter 20 (Effects of Changes to the Environment on Aboriginal People), which recognizes that TKN identified a number of concerns related to potential contamination and that even with environmental management to avoid and minimize the environmental effects of the Project, the perception of contamination could still alter harvesting patterns and consumption of country foods. Therefore, although the Project is not anticipated to affect the quality country foods, it could lead to a perception that the quality of the area's resources has been adversely affected by exposure to the Project. Concerns about the quality of country foods will be addressed by supporting TKN monitoring programs, and sharing the results of proposed monitoring programs with the TKN over the life of the Project (Section 20.7.2).	KwN • WG meeting (Oct. 9, 2014)
Potential harm to cultural values must be looked at before Kwadacha Nation agrees to anything	Potential effects to intangible cultural heritage (which include values, knowledge, and traditions) are assessed in Chapter 20 (Effects of Changes to the Environment on Aboriginal People). The chapter assessed potential changes to intangible cultural heritage as a result of changes to the environment, including changes to use of language or knowledge transmission, and changes to cultural identity, due to potential changes in harvesting patterns. The chapter concludes that, with the implementation of mitigation measures, no residual effects to intangible cultural heritage are anticipated (Section 20.8.3).	KwN • Kwadacha Community Meeting Apr. 7, 2011

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Current Use of Lands and Resources for Traditional Purposes *(cont'd)*		
Potential reduced traditional use in the Project area due to noise levels	The predicted levels of Project-related noise (as described in Section 7.2.6) do not exceed World Health Organization Guidelines for Community Noise (1999) for the nearest human receptor for sleep disturbance or the likelihood of complaints, for either the Construction or Operations phases of the Project. Based on information available to AuRico, Aboriginal land and resource use activities occur in locations that are distant from Project-related sources of noise. Project-related noise will be mitigated in part as mining activities will occur underground. No residual effects to traditional use of land and resources in the Project area are anticipated as a result of changes to noise levels from the Project (Section 20.6.3 of Chapter 20).	KwN • WG meeting (June 26, 2014)
Psychological effects to individuals who use land should the land be negatively impacted	The effects to Aboriginal health and well-being[2] from changes to the land are considered in sections 20.7 and 20.8 of Chapter 20 (Effects of Changes to the Environment on Aboriginal People). Psychological effects were framed as changes to well-being, which could potentially be affected by changes in harvesting patterns, and the resulting effects to diet, nutrition, and household economy. Chapter 20 concluded that no residual effects to diet, nutrition or well-being, household economy or food security are anticipated, and therefore psychological effects to individuals are not anticipated.	TKN • TKN memo to AuRico (Dec. 10, 2014)
Trapline holders close to the mine will be less profitable on account of noise disturbing wildlife	The Project and portions of the transmission line fall within trapline tenure T739T006. In December 2014, AuRico signed a new agreement with the holders of trapline TR0739T006 to mitigate potential environmental or economic effects of the Project on their trapline, including changes in furbearer abundance on their trapline. Previous agreements had been signed with these trapline holders in relation to the KS Mine in 2001 and the proposed Kemess North project in 2005. Since effects to wildlife are only anticipated in the LSA, and only TR0739T006 overlaps the LSA, no residual effects to trapping are predicted for other traplines.	KwN • Kwadacha Community Meeting (Nov. 5, 2014)

[2] Well-being is a term used to characterize social indicators relevant to individuals, families, and communities. Indicators include physical health, access to services, family mobility, crime rates and public safety, economic hardship, and housing. The term 'well-being' groups these indicators to facilitate a more holistic discussion and analysis of how these issues relate to and/or perpetuate one another and together enable a better understanding of social circumstances within a particular area or community. Aboriginal conceptions and definitions of well-being vary but often center around the inclusion of physical, spiritual, emotional, and mental dimensions (NCCAH 2009, 2010). Other similar definitions of health and well-being have included social dimensions in addition to the physical, spiritual, emotional, and mental (NAHO 2007). The First Nation Health Authority (FNHA) defines a First Nations perspective on wellness to include "healthy, self-determining and vibrant BC First Nations children, families, and communities" (FNHA 2015). A core aspect of Aboriginal wellness is the role of the land—and related traditional activities—as an integral part of individual and community well-being. Other factors contributing to the health and wellness of Aboriginal communities are reported to include tradition, territories, language, and culture, many of which are also tied to the land.

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Fish and Aquatic Habitat		
Effects to Arctic grayling in creeks.	Arctic grayling are not present in the local or regional study areas (Attichika and Attycelley watersheds), or anywhere else in the Thutade Lake Watershed. This information is indicated in both the Fish and Aquatic Baseline Report (Appendix 14-A), and the 2014 Thutade Lake Fish and Fish Habitat Baseline Report (Appendix 11-C) which present results of fish sampling throughout the Thutade Watershed. Specific regional fish composition studies are included in Appendix 12 of the 2014 Thutade Lake Fish and Fish Habitat Baseline Report. Arctic grayling are present in the Finlay River downstream from Cascadero Falls (downstream from Thutade Lake) and juvenile arctic grayling were captured during sampling in this section of the Finlay River during September 2015. The results of the 2015 fish studies on Thutade Lake and the Finlay River are presented as a supplementary report to the 2014 Thutade Lake Fish and Fish Habitat Baseline Report (Appendix 14-C).	KwN • Kwadacha Community Meeting (Apr. 7, 2011)
Increased sedimentation affecting spawning areas and associated mitigation measures	The Project will use best management practices (BMPs) to ensure measures are taken to reduce or eliminate sediment production in the vicinity of potential spawning areas. Mitigation measures have been incorporated in the Project design to ensure that core fish spawning areas are avoided (described in section, 14.5.3.2, of Chapter 14, Fish and Aquatic Habitat). For example, the access road and conveyor system have been relocated away from higher value fish habitats in El Condor Creek and the alignment of the discharge outfall has been relocated to avoid bull trout staging and spawning areas in Attichika Creek. Specific construction practices will be confirmed at the permitting stage. Implementation of erosion and sediment control structures will follow BMPs with guidance from the Forest Road Engineering Guidebook (BC MOF 2002) and the Measures to Avoid Causing Harm to Fish and Fish Habitat from Fisheries and Oceans Canada (DFO 2013). Any upgrades to existing access roads associated with the Project will be conducted according to the Forest Road Engineering Guidebook and maintained to ensure low landslide risk and continuous, efficient, controlled water drainage (BC MOF 2002). Measures will be taken to ensure the concentration of total suspended solids in Project effluent discharge remains within the requirements for the protection of aquatic life based on permit requirements outlined in the *Environmental Management Act* (2002).	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Fish and Aquatic Habitat *(cont'd)*		
Increased sedimentation affecting spawning areas and associated mitigation measures *(cont'd)*	Erosion and sediment release into watercourses will be mitigated during all project phases through the implementation of the Surface Erosion and Sediment Control Plan (Section 24.15), Surface Water Management Plan (Section 24.16), and Fish and Aquatic Effects Monitoring Plan (Section 24.7). Specific details for management of erosion and sedimentation on site will include establishment of runoff and diversion ditches, sedimentation ponds, and stabilization methods to reduce risk of sloughing of fill into watercourses. AuRico will retain the services of a Qualified Environmental Professional (QEP) to monitor instream works during construction and ensure the commitments specified in the Surface Erosion and Sediment Control Plan are followed.	
Overall or cumulative effects of the Omineca Access Road (ORAR) network on aquatic resources and fish	The ORAR was established in the upper Sustut and Moosevale/Thorne/Attichika watersheds during the 1970s and 1980s. The access road into the upper Sustut and areas further north provided access into important fish habitats along the corridor and changed use patterns in the area. The ORAR is considered existing infrastructure and outside the scope of the Project and is therefore not considered in the fish and aquatics effects assessment (Chapter 14, Fish and Aquatic Habitat).. The study this comment comes from was funded by AuRico for TLFN in 2014.	TLFN • Tenaki Road Fish Passage Inventory Report (Mar. 9, 2015 and Mar. 25, 2015)
Percentage of metal concentration in the water deemed dangerous to fish	In Chapter 11 (Surface Water Quality) contaminants of potential concern (COPCs) were identified for certain metals in certain waterbodies within the study area if their concentration was at least 10% higher than baseline water quality and if they were greater than guidelines for the protection of aquatic life, drinking water, and/or wildlife water supply. The assessment found that base case and upper case predictive water quality modelling indicated COPCs (i.e., total cobalt, chromium, copper, iron, and zinc) in East Cirque Creek in the Post-Closure phase, however predicted concentrations are within the range of natural variation. Similarly, in Central Cirque Creek, concentrations of total and dissolved aluminum and total iron were identified as COPCs in Post-Closure; however, predicted concentrations are within the range of natural variation. Predictive water quality modelling did not identify any COPCs in Amazay (Duncan) Lake or Attycelley Creek for any sensitivity case in Closure and Post-Closure phase. No COPCs were identified in Thutade Lake or the Finlay River.	KwN • WG meeting (June 26, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Fish and Aquatic Habitat *(cont'd)*		
Percentage of metal concentration in the water deemed dangerous to fish *(cont'd)*	These results of were incorporated into Chapter 14 (Fish and Aquatic Habitat). Chapter 14 (Fish and Aquatic Habitat) included comparison of these COPCs to the range of natural variation in these waterbodies and subsequent discussion of potential effects to fish if these COPCs were greater than the range of natural variation and greater than the guidelines for the protection of aquatic life. Chapter 14 indicates that base case and upper case water quality modelling identified COPCs in four creeks within the fish and aquatic habitat LSA: Attichika, Waste Rock, East Cirque and Central Cirque creeks. The residual effects assessment found that: • East and Central Cirque creeks are both barren of fish, with baseline aquatic habitat of low quality. Changes in water quality in both creeks are negligible at the downstream assessment nodes (Attycelley Creek and Amazay Lake, respectively), therefore, these reaches were excluded from the characterization of residual effects on fish and aquatic habitat and from any further assessment. • Predicted changes in total cadmium concentrations in Attichika Creek and changes in nitrate and total aluminum, selenium, and copper concentrations in Waste Rock Creek were included in the residual effects assessment of changes in water quality on fish and aquatic habitat. Residual effects from total cadmium changes in water quality on fish and aquatic habitat were predicted to be not significant. Residual effects to fish and aquatic habitat from changes in water quality are confined to the Waste Rock Creek watershed and predicted to be not significant.	
Project effects on fish and fish habitat	Potential Project related-effects on fish and aquatic habitat are assessed in Chapter 14 (Fish and Aquatics Habitat). Potential project effects included direct mortality, erosion and sedimentation, changes in Surface Water Quantity (Chapter 10) and Surface Water Quality (Chapter 11), and habitat loss. Potential effects include direct mortality, erosion and sedimentation, effects resulting from changes in surface water quantity (Chapter 10) and quality (Chapter 11), and habitat loss. Mitigation measures, including those outlined in the Fish and Aquatic Effects Monitoring Plan (Chapter 24.7) will minimize many of these potential effects to fish and aquatic habitat. Chapter 14 concludes that after mitigation, residual effects to fish and aquatic habitat were anticipated from changes in surface water quantity (i.e., streamflow increases in Attichika Creek and increased discharge in Waste Rock Creek) and surface water quality (i.e., potential change in total cadmium concentrations in Attichika Creek, change in nitrate and total aluminum,	TLFN • Takla Landing Community Meeting (Mar. 16, 2011) KwN • Kwadacha Community Meeting (July 6, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Fish and Aquatic Habitat *(cont'd)*		
Project effects on fish and fish habitat *(cont'd)*	selenium and copper concentrations in Waste Rock Creek). Based on evaluation of the mitigation measures incorporated into the Project, and the results of predictive hydrological and water quality modelling, within the Fish and Aquatic Habitat LSA and RSA, there will be no significant Project-related residual effects on fish and aquatic habitat. No past, present, or reasonably foreseeable projects are expected to interact cumulatively with the predicted Project-related residual effects for fish and aquatic habitat within the RSA. Therefore, no residual cumulative effects to fish and aquatic habitat resulting from changes in water quantity and quality are anticipated.	
Geochemistry		
Effects of acid generating waste rock on the environment	The potential for acid rock drainage (ARD) from waste rock to be excavated by the Project was evaluated in geochemical baseline studies (Appendix 7-1, Kemess Underground Geochemical Characterization Source Term Development and Water Quality Predictions for Underground Contact Waters, and Appendix 7-2: Kemess Underground Tailings Storage Facility Highwall Source Term Development) and geochemical predictive studies (Chapter 7.3, Geochemistry). TKN's technical advisor was involved in discussions related to source term development and reviewed the baseline report and provided comments on the source term development. Predicted Project-related effects on surface water quality due to Metal Leaching (ML)/ARD from waste rock are incorporated into predictive modelling for the Project and are assessed in Chapter 11 (Surface Water Quality) which concludes that potential effects from ARD resulting in changes to pH (acidity/basicity), acidity, and alkalinity values in the downstream receiving environment are considered to be fully mitigated by the proposed ML/ARD management strategies (Section 24.11 of Chapter 24, Environmental Management Plans) and no residual effects are expected. The mine waste, tailings, and ML/ARD Management Plan (Section 24.11) outlines the plan for monitoring, prevention, and mitigation of potential effects from acid rock drainage with waste rock primarily managed by subaqueous or subterranean disposal in the KUG TSF.	TLFN • Takla Landing Community Meeting (Mar. 16, 2011)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Heritage		
Cultural and archaeological sites post-dating 1846 require consideration	The majority of the Project footprint is located within areas that have been previously disturbed by the KS Mine. Potential effects to heritage resources are considered in Chapter 19 (Heritage). This chapter indicates that there are no known post-1846 sites within the Heritage LSA and therefore no direct or indirect effects are anticipated. If as-yet unknown archaeological sites are identified within the Heritage LSA during Construction or Operations, the Heritage Chance Find Procedure will be followed.	TKN • TKN memo to AuRico (Dec. 10, 2014)
Protection of heritage and traditional use areas	The majority of the Project footprint is located within areas that have been previously disturbed by the KS Mine. Potential effects to heritage resources are considered in Chapter 19 (Heritage), which indicates that there is one identified archaeological site within the Heritage LSA and Current Use of Land and Resources for Traditional Purposes LSA. This site is a small lithic scatter consisting of three basalt flakes located in the ditch of the existing exploration road. The basalt flakes may have been exposed during road grading. Shovel testing conducted in the area did not locate any additional cultural material (Appendix 19-2). If necessary, mitigation measures will be developed in consultation with the Archaeology Branch of FLNRO. If as-yet unknown archaeological sites are identified within the LSA during Construction or Operations, the Heritage Chance Find Procedure, part of the Heritage Management Plan, will be followed. Additional Archaeological Impact Assessments (AIAs) will be completed on areas of proposed disturbance for the KUG project to identify any potential heritage resources.	KwN • Dena Kayeh Institute comments on behalf of Kwadacha First Nation as summarized in TKN memo to AuRico (Dec. 10, 2014)
Human Health		
Concern about the safety of wildlife consumption in the Project area	Potential health risks to the general population and to Aboriginal groups are assessed in Chapter 18 (Human Health). The Project-related human health risk assessment (HHRA) (Appendix 18-B) assessed the risk associated with COPCs in drinking water quality, air quality, country foods quality, and noise levels during the Construction and Operations phases; the assessment was designed following methodology outlined by Health Canada. The HHRA included the assessment of deposition of dustfall (containing metals) onto plant surfaces as well as from dustfall onto soil and the subsequent uptake into plants, which are then consumed by country food species. Metals that bio-accumulate were included in the assessment. Chapter 18 concluded that the risk to human health during the Construction and Operations phases was similar to baseline conditions, and residual effects to human health were not identified. Therefore, the Project does not anticipated effects the quality country foods.	KwN • Kwadacha Community Meeting (Apr. 7, 2011) TKDN • TKDN Community Meeting (July 7, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Human Health *(cont'd)*		
Concern that chemicals to be added to the TSF are poisonous	There will be no public access to the Project, which includes the KUG TSF. Therefore, people using the land will not have access to the KUG TSF and therefore they will not consume water from the KUG TSF. Water that is discharged from the KUG TSF will be treated during Operations before it is released in the receiving environment.	TKN • TKN memo to AuRico (Dec. 10, 2014)
Concern that drinking water will be contaminated	Water that is discharged from the KUG TSF will be treated during Operations before it is released in the receiving environment. Therefore, drinking water will not be contaminated. Concerns about the quality of drinking water will be addressed by sharing the results of water quality monitoring with TKN over the life of the Project.	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011)
Concern that plants that are harvested for consumption might become contaminated	Potential health risks to Aboriginal groups, including risks associated with country foods consumption (e.g., harvested plants), are assessed in Chapter 18 (Human Health). The Project-related human health risk assessment (HHRA) (Appendix 18-B) assessed the risk associated with COPCs in drinking water quality, air quality, country foods quality, and noise levels during the Construction and Operations phases. The HHRA was designed following methodology prescribed by Health Canada. This HHRA assessed the deposition of dustfall (containing metals) onto plant surfaces as well as from dustfall onto soil and the subsequent uptake into plants, which are then consumed by country food species. Metals that bio-accumulate are included in the assessment. The assessment concludes that the Project is not anticipated to affect the quality country foods, including plants that may be harvested for consumption. Although the Project is not anticipated to affect the quality country foods, there may be a perception that the quality of the area's resources has been affected by exposure to the Project. Concerns about the quality of country foods will be addressed by supporting TKN monitoring programs, and sharing the results of water quality monitoring with TKN over the life of the Project.	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011)
Contamination of Finlay River, the source of drinking water for the community of Kwadacha, as a result of contamination in Thutade watershed	Potential Project-related effects on surface water quality (including Finlay River) are assessed in Chapter 11 (Surface Water Quality), and potential effects on human health, including drinking water, are discussed in Chapter 18 (Human Health). In Chapter 11, the results of predictive water quality modelling for the life of the Project were compared to modelled background water quality in Finlay River for parameters with water quality guidelines to identify any contaminants of potential concern (COPC) that would indicate residual effects on Thutade Lake (Section 11.6). Predictive water quality modelling did not indicate any residual effects to water quality in Finlay River for any model sensitivity.	TLFN • TKN memo to AuRico (Dec. 10, 2014) KwN • Dena Kayeh Institute comments on behalf of Kwadacha First Nation as summarized in TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Human Health *(cont'd)*		
Contamination of Finlay River, the source of drinking water for the community of Kwadacha, as a result of contamination in Thutade watershed *(cont'd)*	Potential health risks to the general population and to Aboriginal groups are assessed in Chapter 18. The Project-related human health risk assessment (HHRA) (Appendix 18-B) and included an assessment of risk associated with COPCs in drinking water during the Construction and Operations phases. The assessment of drinking water ingestion within the human health Local Study Area (LSA) included sites along the Finlay River. It was determined that the risk to human health during the Construction and Operations phases was similar to baseline conditions, and residual effects to human health were not identified. It is also noteworthy that no specific surface waterbodies or springs within the human health LSA or RSA were identified as drinking water sources by transient users during land use or traditional knowledge studies. Concerns about the quality of drinking water will be addressed by sharing the results of water quality monitoring with TKN over the life of the Project.	
Effects of dust smothering harvested plants, and which harvested plants might be affected, including the bio-accumulation of metals in plants and soils	Air quality modelling results (Section 7.1, Air Quality Predictive Study) and results of the assessment of soil quality (Chapter 12, Terrain and Soils) suggest that the predicted amount of metals deposited on the soil surface with dust within the mine's life will be minimal (typically below 0.01% of the baseline soil concentration). The air quality modelling also predicted that the dustfall settling within 100 metres (m) of Project roads will reach a maximum of 3.2% of the typical, (low) background dustfall amounts. The mean dust deposition along the road is expected to range between 1% and 2% of the baseline. Bio-accumulation of metals in soils or vegetation is not predicted. Concerns about the quality of plant country foods will be addressed by sharing the results of air quality monitoring with TKN over the life of the Project.	KwN • Dena Kayeh Institute comments on behalf of Kwadacha First Nation as summarized in TKN memo to AuRico (Dec. 10, 2014)
Effects of fugitive dust contaminating species that are consumed by people	Potential health risks to the general population and to Aboriginal groups are assessed in Chapter 18 (Human Health). The Project-related human health risk assessment (HHRA) (Appendix 18-B) assessed the risk associated with COPCs in drinking water quality, air quality, country foods quality, and noise levels during the Construction and Operations phases. The HHRA assessed the deposition of dustfall (containing metals) onto plant surfaces as well as from dustfall onto soil and the subsequent uptake into plants, which are then consumed by country food species. Metals that bio-accumulate are included in the assessment. It was determined that the risk to human health during the Construction and Operations phases was similar to baseline conditions, and no residual effects to human health were identified. Concerns about the quality of country foods will be addressed by sharing the results of monitoring with TKN over the life of the Project.	KwN • Dena Kayeh Institute comments on behalf of Kwadacha First Nation as summarized in TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Human Health *(cont'd)*		
Potential bio-accumulation in animals in the Project area	Chemical hazards, including bio-accumulative COPCs are assessed for wildlife in Chapter 15 (Wildlife and Wildlife Habitat). No residual effects as a result of the potential effect of chemical hazards were predicted for wildlife, including woodland caribou, moose, furbearers and migratory birds. Potential health risks to the general population and to Aboriginal groups are assessed in Chapter 18 (Human Health). The Project-related human health risk assessment (HHRA) (Appendix 18-B) assessed the risk associated with COPCs in drinking water quality, air quality, country foods quality, and noise levels during the Construction and Operations phases. The HHRA assessed the deposition of dustfall (containing metals) onto plant surfaces as well as from dustfall onto soil and the subsequent uptake into plants, which are then consumed by country food species. Metals that bio-accumulate are included in the assessment. It was determined that the risk to human health during the Construction and Operations phases was similar to baseline conditions, and no residual effects to human health were identified.	TKN • WG meeting (July 29, 2014) KwN • TKN memo to AuRico (Dec. 10, 2014)
Potential bio-accumulation in resident fish populations in lakes	AuRico conducted sampling of background metals in fish in Thutade Lake, Attichika Creek, South Creek Pass, and Attycelley Creek, and the findings are presented in Fish and Aquatics Baseline Report (Appendix 14-A). This included a request for additional adult bull trout in Thutade Lake (who use Attichika Creek) (see comment and response two below).Additional fish background metals data for the Kemess watershed were collected in August 2015 and will be presented as a supplementary report (Appendix 14-C) to the 2014 Fish and Fish Habitat Baseline Report. Chapter 14 (Fish and Aquatic Habitat) indicates that base case and upper case water quality modelling identified contaminants of potential concern (COPCs) in four creeks within the LSA (Attichika, Waste Rock, East Cirque and Central Cirque creeks). Changes in water quality in East and Central Cirque creeks were determined to be negligible at the downstream assessment nodes (Attycelley Creek and Amazay Lake, respectively), therefore, these reaches were excluded from the characterization of residual effects on fish and aquatic habitat and from any further assessment. East and Central Cirque creeks are both barren of fish, with baseline aquatic habitat of low quality. Predicted changes in total cadmium concentrations in Attichika Creek and changes in nitrate and total aluminum, selenium, and copper concentrations in Waste Rock Creek were included in the residual effects assessment of changes in water quality on fish and aquatic habitat. Residual effects from total cadmium changes in water quality on fish and aquatic habitat were predicted to be not significant. Residual effects to fish and aquatic habitat from changes in water quality are confined to the Waste Rock Creek watershed and predicted to be not significant.	TKN • WG meeting (June 26, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Human Health *(cont'd)*		
Potential bio-accumulation in resident fish populations in lakes	Potential health risks to the general population and to Aboriginal groups are assessed in Chapter 18 (Human Health). The Project-related human health risk assessment (HHRA) (Appendix 18-B) assessed the risk associated with COPCs in drinking water quality, air quality, country foods (including fish), and noise levels during the Construction and Operations phases. The HHRA was conducted following methodology prescribed by Health Canada. Metals that bio-accumulate were included in the assessment. It was determined that the risk to human health during the Construction and Operations phases was similar to baseline conditions, and no residual effects to human health were identified.	
Potential impacts of contaminants such as petroleum products and mine process reagents on human health	The assessment of human health effects from exposure to petroleum products and mine process reagents was not required in the Application Information Requirements (AIR), and it is therefore not considered in the Application. The proponent has also committed to implement a Environmental Emergency, Spill, and Hazardous Materials Plan (Section 24.6 of the Application).	KwN • Dena Kayeh Institute comments on behalf of Kwadacha First Nation as summarized in TKN memo to AuRico (Dec. 10, 2014)
Request for increased sampling of adult bull trout in Thutade Lake who use Attichika Creek, in order to assess bio-accumulation	In response to TKN request, a sampling program for Thutade Lake bull trout was undertaken. Bull trout were sampled in Attichika Creek as follows: • 5 in 2007; • 5 in 2008 (lower Attichika Creek); • 1 in 2009 (Attichika wetlands); • 3 in 2013 (Attichika wetlands); and • 18 in 2014. Chapter 14 indicates that base case and upper case water quality modelling identified COPCs in four creeks within the fish and aquatic habitat LSA (Attichika, Waste Rock, East Cirque and Central Cirque creeks). With respect to Attichika Creek, predicted changes in total cadmium concentrations in Attichika Creek were included in the residual effects assessment of changes in water quality on fish and aquatic habitat, and were predicted to be not significant.	TKN • WG meeting (June 26, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Hydrogeology		
Concern that TSF water will seep into underground creeks	There are no underground creeks in the Project Area. However, AuRico evaluated seepage flow from the proposed KUG TSF using a 2-D seepage model. The result of the model indicated that seepage flows are predicted to report to Waste Rock Creek and Kemess Creek (Appendix 9-C). The effects of KUG TSF seepage are incorporated in the predictive water quality modelling Appendix 11-D (Water Balance and Water Quality Modelling Report) with results used to inform the surface water quality effects assessment (Section 11.6). Concentrations of metals in surface waters in the receiving environment that were predicted by water quality modelling (Section 11.6) were assessed for COPCs. Predictive water quality modelling did not indicate any residual effects to water quality in Finlay River for any model sensitivity.	TKN • TKN memo to AuRico (Dec. 10, 2014)
Concern there are open drill holes with water flowing out, likely related to exploration activities	Exploration boreholes that have water flowing out of the hole have been sampled historically as part of the proposed 2005 Kemess North open pit mine application (4 holes) and more recently by AuRico as part of the KUG Project EA (1 borehole). Water quality from the boreholes was analyzed and was determined to be similar to baseline water quality in North Cirque Creek and East Cirque Creek and therefore, the water from these boreholes does not negatively affect the receiving environment. Geochemical data from these boreholes have been use in the geochemical characterization of the Project.	TKN • TKN memo to AuRico (Dec. 10, 2014)
Creeks with water quality issues as a result of seepage	Creek water quality is a function of surface water and groundwater contributions. Changes to the quantity of groundwater discharging to creeks as a result of the Project have been assessed using numerical groundwater models: a 3-D numerical model has been used to determine groundwater quantity impacts in resulting from the proposed underground mine (Section 9.6.1.1, Appendix 9-B); a 2-D numerical groundwater model and a 2-D seepage model have been used to determine groundwater quantity impacts from the KUG TSF (Section 9.6.1.2, Appendix 9-C). The 3-D groundwater model predicts that changes in groundwater contributions to streamflow as a result of the underground are limited to East Cirque Creek and Central Cirque Creek. Late in post-closure, groundwater discharge to Central Cirque Creek will stabilize below the its baseline level (5.5 Litres/second (L/s) vs 8.7 L/s) while groundwater discharge to East Cirque Creek will increase by 28% above its baseline level (23 L/s vs. 18 L/s). The decrease in discharge to Central Cirque Creek is expected to result in an improvement in water quality in that catchment due to reduction of chemical loads. During Post-Closure, contact water from the underground will report to East Cirque Creek catchment only, but does not	TKDN • Tsay Keh Community Meeting (July 7, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Hydrogeology *(cont'd)*		
Creeks with water quality issues as a result of seepage *(cont'd)*	substantially change water quality in the creek (Section 9.6.2.1). This is because background water quality in East Cirque Creek is heavily influenced by the gossan, and most of the underground contact water reporting to the creek will be draining the gossan material and will have similar water quality signature as baseline conditions. Deep groundwater in the development will experience a decline in water quality for certain parameters (sulphate, cadmium, copper, manganese, nickel, selenium and zinc), but only a small proportion (5%) of this water makes up the contact water that reports to East Cirque Creek. Potential effects on water quality in East Cirque Creek and Central Cirque Creeks arising from underground development have been assessed using predictive water quality modelling (Section 11.6, Appendix 11-D). The 2-D numerical model predicts a combined seepage rate from the KUG TSF of 1-2 L/s through the pit walls, dam and dam foundation. Tailings discharge, high wall runoff and discharge of underground dewatering water will result in water quality within the TSF that will contain contaminants of concern at concentrations higher than existing bedrock groundwater quality. KUG TSF seepage water quality is predicted to improve following the cessation of operations and into post closure. Potential effects on surface water quality from groundwater seepage from the KUG TSF have been assessed using predictive water quality modelling (Section 11.6, Appendix 11-D). The seepage flux and resultant loading to Kemess Creek and ultimately Attichika Creek will be minor and is not expected to result in a residual effect on water quality in the receiving environment (i.e. Kemess Creek or Attichika Creek).	
Effects to groundwater seepage from underground water associated with the Project	The Application evaluates potential effects on groundwater quantity and quality in the area of the underground mine based on the results of 3-D numerical groundwater model developed in accordance with BC MOE guidelines (Section 9.6.1.1, Appendix 9-B). With respect to quantity of groundwater seepage, the 3-D numerical groundwater model predicts maximum underground inflow rates (approaching 50 L/s on an annual average) occur once the cave zone and subsidence zone are fully developed. The capture of groundwater in the underground development means that less groundwater is available to report as baseflow to East Cirque Creek and Central Cirque Creek. The reduction in creek baseflow starts during construction of the declines and persists into closure as the water table recovers. At maximum impact, annual average groundwater discharge to East Cirque Creek declines by 40% of its baseline value (11 L/s versus 18 L/s), while groundwater	TLFN • EMC meeting (May 15, 2013)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Hydrogeology *(cont'd)*		
Effects to groundwater seepage from underground water associated with the Project *(cont'd)*	discharge to Central Cirque Creek declines by over 50% of its baseline value (4.2 L/s versus 8.7 L/s). Late in closure, the water table recovers to a point where baseflow in East Creek Creek starts to increase above its baseline value. This is expected to occur around project year 60. Ultimately, groundwater discharge to East Cirque Creek is expected to stabilize at about 28% above its baseline value (23 L/s versus 18 L/s). Most contact water is anticipated to report to East Cirque Creek within a couple hundred meters of the edge of the subsidence zone. This seepage is expected to follow shallow groundwater flowpaths associated with rapid travel times (less than two months). During Post-Closure, contact water from the underground will report to East Cirque Creek, but is not expected to have a significant impact on water quality. Groundwater discharge to Central Cirque Creek will remain depressed permanently, at a level 40% below the baseline value (5.5 L/s vs 8.7 L/s). The development of the underground is not predicted to have any impact on groundwater discharging to or recharging from Amazay Lake. All contact water during the Post-Closure phase from the KUG is predicted to report to East Cirque Creek only.	
Location of groundwater and monitoring wells need to be portrayed on maps	Section 9.4 of Chapter 9 (Hydrogeology) includes maps identifying the location of boreholes and groundwater monitoring wells (Figure 9.4-2). This information is also included in Appendix 9-A.	TKN • EMC meeting (July 8, 2014)
Identifying the location and sources of inputs into the KS pit on a map	AuRico indicated that other than direct precipitation into the KS open pit, there are two main existing inputs into the KS open pit: the selenium pond and surface water run off collection from the camp and process plant site. If the Project is developed, new inputs will include dewatering from the underground works and recycling of process plant water. AuRico provided maps identifying the location and sources of inputs into the KS open pit to the TKN at the September 16, 2014 EMC meeting.	KwN • EMC meeting (July 8, 2014)
Potential effects from subsidence on Amazay Lake	AuRico conducted subsidence modelling in 2012. The model predicts that subsidence will propagate vertically from the block cave zone toward the terrain overlying the Kemess Underground deposit. Because of the underground workings, the Project has the potential to affect groundwater quantity (i.e., flow volume and movement) and groundwater quality. The KUG numerical groundwater model predicts that the maximum extent of the hydraulic capture zone resulting from the underground development will be approximately 120 ha and will be limited within the East Cirque Creek and Central Cirque Creek catchments, and therefore no hydraulic interaction between the underground workings and Amazay Lake is anticipated other than a base flow reduction for the lake tributary stream Central Cirque Creek.	KwN • WG meeting (Aug. 5, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Hydrogeology *(cont'd)*		
Potential effects from subsidence on Amazay Lake *(cont'd)*	As compared to the baseline condition, a percentage value of 52% for the maximum base flow reduction in Central Cirque Creek is expected due to the Project development. At post-closure, a permanent reduction of 37% in Central Cirque Creek base flows is anticipated. The base flow predictions from the KUG groundwater model are provided in Section 9.6 (Chapter 9, Hydrogeology), and the underground groundwater modeling report is included as Appendix 9-B, Groundwater Modeling for Kemess Underground Mine. This annual reduced base flow regime for the Central Cirque Creek as produced from the groundwater model has been incorporated into the surface water GoldSIM model undertaken for the Project, which evaluates potential surface water quality and quantity changes in Amazay Lake.	
Predictions about the subsidence zone	Based on current mine planning, the underground workings will roughly correspond to an aboveground footprint of 540 m wide and 230 m long, which is predicted to result in a 35 ha subsidence zone (crater). Because of the underground workings, the Project has the potential to affect groundwater quantity (i.e., flow volume and movement) and groundwater quality. A session was held with TKN so that AuRico's technical consultants could explain the panel caving and the resulting subsidence cone predictions for KUG. The KUG underground numerical groundwater model predicts that drawdown of groundwater levels associated with underground development will alter base flows in both East Cirque and Central Cirque Creeks throughout the life of the Project and through closure. The maximum base flow reductions in Central Cirque Creek and East Cirque Creek are predicted to occur during closure between project years 24 and 40. Predicted maximum reductions in base flows in Central and East Cirque Creeks are 52% and 39% relative to their baseline values, respectively. As the water table recovers during closure, base flow in Central Cirque will remain depressed (37% lower than its baseline value), while base flow in East Cirque Creek is expected to increase by 28% over its baseline value. These changes arise from the cave zone behaving like a large groundwater sump, causing some of the groundwater that would have normally reported to Central Cirque Creek to be permanently diverted to the subsidence zone and then to East Cirque Creek. This, in combination with enhanced recharge over the subsidence zone, causes base flow in East Cirque Creek to ultimately rise above its baseline value. Changes to base flow in East and Central Cirque creeks are discussed in Section 9.6 and in Appendix 9-B. Mine inflow water quality and contact water quality is predicted for each phase of the Project from construction through to closure and is described in detail in Section 7.3 (Geochemistry).	TKN • WG meeting (Aug. 5, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Hydrogeology *(cont'd)*		
Water seepage from KS pit *(cont'd)*	The KS pit is the proposed TSF for the KUG Project. Seepage from the TSF has been quantified with the aid of two numerical models. A seepage rate of 0.4 L/s through the TSF East Dam and underlying foundation has been assessed in a two-dimensional numerical seepage model. An additional seepage contribution of approximately 1 L/s (for a total of 1.4 L/s seepage from the facility) has been estimated through the pit walls using a separate, two-dimensional numerical groundwater model. Combined results of the TSF seepage models are presented in Section 9.6 and Appendix 9-C. Tailings discharge, high wall runoff and discharge of underground dewatering water will result in water quality within the TSF that will contain contaminants of concern at concentrations higher than existing bedrock groundwater quality. KUG TSF seepage water quality is predicted to improve following the cessation of operations and into post closure. The potential effects of water seepage from the TSF to surface water quality in Waste Rock Creek and Kemess Creek have been assessed using predictive water quality modelling as described in Section 11.6 and Appendix 11-D (Water Balance and Water Quality Modelling Report). The seepage flux and resultant loading to Kemess Creek and ultimately Attichika Creek is minor and is not expected to result in a residual effect on water quality in the receiving environment (i.e. Kemess Creek or Attichika Creek).	TKN • WG meeting (Jun. 26, 2014) • EMC meeting (July 8, 2014) TLFN • Takla Lake Community Meeting (Nov. 13, 2014)
Socio-economic		
Employment/Economic Opportunities- General	Chapter 1, Section 1.11 (Project Benefits) describes employment estimates (direct, indirect and induced), and contractor supply services estimates. Under the Interim Measures Agreement (IMA) signed between AuRico and TKN in 2012 there is an objective to assist TKN and its members to benefit from business opportunities associated with the Project. Employment preference, as defined in the IMA, includes: circulating job notices to TKN first, interviewing qualified applicants, encouraging contractors and sub-contractors to follow the aforementioned, making reasonable efforts to provide training for on-the job-opportunities and to assist with finding appropriate training program elsewhere, and to provide written support for applications for training funds submitted by TKN. To date, employment efforts have focused on exploration and reclamation. Chapter 1 section 1.11.2.5 also notes that TKN will have the first opportunity for employment at the project for qualified candidates.	TKN • meeting (Apr. 10, 2013) TLFN • Phone Calls (Feb. 26, 2014 and Oct. 17, 2014) TKDN • Tsay Keh Community Meeting (Nov. 6, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Socio-economic *(cont'd)*		
Employment/Economic Opportunities- General *(cont'd)*	For the Construction Phase, contractor employment will total 508 jobs, and there will be 593 direct Project jobs. The Operation Phase of the Project will provide 163 contractor jobs and 4,737 direct Project jobs. Based on Kemess South, a minimum 10% of those jobs will be held by Aboriginal people. The construction of the Project is expected to award $50 to $92 million every year in contracts, plus up to $64 million during the entire construction phase for services and/or equipment and supplies. The Operations phase will award $52 to $77 million in contracts to various businesses at the local, provincial and national level. Full list of businesses to benefit from the Project is included in Chapter 1, Section 1.11.3.2 (Table 1.11-14). The construction of the Project is expected to award $50 to $92 million every year in contracts, plus up to $64 million during the entire construction phase for services and/or equipment and supplies. The Operations phase is expected to award $52 to $77 million in contracts to various businesses at the local, provincial and national level. A list of businesses that would benefit from the Project are listed in Chapter 1, Section 1.11.3.2 (Table 1.11-14).	
Evidence needed to indicate whether the Project will have a positive or a negative impact on Aboriginal communities	The social effects assessment (Chapter 17) examines the potential for the Project to effect community well-being (refer to footnote 2 for defn of community well being) for Aboriginal and non-Aboriginal communities. The chapter concludes that the Project has the potential to result in both positive and negative effect on community well-being and review a number of mitigation measures AuRico will implement to maximize the potential for positive outcomes. The Project is expected to have positive effects for the majority of those employed for the Project (Section 17.5.3.2).	TKN • TKN memo to AuRico (Dec. 10, 2014)
In addition to jobs and compensation, would like support with capacity issues and infrastructure	One of the objectives of the IMA is "to assist TKN and its members to benefit from business opportunities associated with the Project." This includes building TKN capacity by promoting, encouraging and facilitating the use of qualified TKN individuals and businesses, when possible, to supply goods and services during all phases of the Project. An example of this is several TKN businesses providing trucking, road maintenance, road reclamation services for the exploration program and powerline brushing over the past several years.	TKDN • Tsay Keh Community Meeting (Apr. 6, 2011)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Socio-economic *(cont'd)*		
In addition to jobs and compensation, would like support with capacity issues and infrastructure *(cont'd)*	Employment and Training opportunities are outlined in Section 3.6.3.9, including employment equity hiring policies (e.g., job notices will be circulated to TKN first); establishment of the Employment and Contract Subcommittee of the SIC (February 2015) which provides a forum for AuRico to communicate employment and contracting opportunities to TKN, development of an Employment and Contract Opportunities Framework (March 2015), which outlines specific responsibilities and requirements for employment opportunities associated with the Project. AuRico has and continues to participate in career and employment events in the TKN communities (e.g., career fair in Kwadacha on June 1, 2011; booth at career fair in Kwadacha January 16, 2014; participation in TKN career fair on September 23, 2014).	
Incompatibility of mining jobs with those practicing traditional activities	AuRico will provide training and skill development in order to maximize employment benefits within local communities and align the skillset of the local labour with available jobs opportunities. This will also include specialized skill training and on-the-job training for construction workers. AuRico has a professional development and training policy in place that was used at KS Mine; this training policy will be implemented at the proposed Project. The Project will also offer an apprenticeship program for trades training. Similarly, the KS had an on-the-job First Nations Training Program that may be revised to reflect the training needs for the Project. Further, the IMA signed with TKN includes commitments to training opportunities in order to maximize employment benefits with TKN (Section 1.11 of Chapter 1, Project Overview).	TKN • TKN memo to AuRico (Dec. 10, 2014)
Interest in training programs and opportunities	AuRico will provide training and skill development, including on-the-job training offered to Project employees across departments in order to support ongoing enhancement of worker skillsets and internal job advancement. The Project will provide and support training opportunities, such as specialized skill training and on-the-job training. AuRico has a professional development and training policy in place that was used at KS; this training policy will be also implemented at the proposed Project. The Project will also offer an apprenticeship program for trades training. Similarly, the KS had an on-the-job First Nations Training Program that will potentially be revised to reflect the training needs for the Project. Further, the IMA signed with TKN includes commitments to training opportunities in order to maximize employment benefits (Section 1.11 of Chapter 1, Project Overview).	KwN • TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Socio-economic *(cont'd)*		
Need for equal access to contract opportunities	The Project will encourage the involvement of local and regional businesses interested in the opportunities to directly and indirectly supply the Project to maximize the benefits within the region. Suppliers will be selected based on location, quality, price, delivery, and support services with the standards for purchasing determined during the initial stages of the Project. The Procurement Strategy, to be developed by the Proponent, is expected to encourage the procurement of goods and services from both local and Aboriginal-owned suppliers, where such goods and services are competitive in quality and price. Additionally, under the IMA there is an objective to assist TKN and its members to benefit from business opportunities associated with the project.	TKN • E-mail (Dec. 14, 2014) KwN • SIC meeting (Mar. 25, 2015)
Percentage of workforce that will be Aboriginal	Based on KS experience, an estimated minimum of 10% of on-site jobs will be held by Aboriginal people.	TKN • TKN memo to AuRico (Dec. 10, 2014)
Transportation can be a barrier for accessing mine-related jobs; e.g. not being able to fly into Kemess from Kwadacha	All workers who work on the 2 week on/2 week off (2x2) rotation schedule will have their designated departure point as Smithers and Prince George, as well as other communities in BC that can be cost effectively justified. The sole means of transportation to/from the Project is by chartered aircraft.	KwN • Kwadacha Community Meeting (Apr. 7, 2011)
Trapline holders close to the mine may lose economic opportunities on account for noise disturbing wildlife	The assessment of potential losses to economic opportunities due to reduced ability to trap furbearers is addressed under sections 20.6 and 20.7 in Chapter 20 (Effects of Changes to the Environment on Aboriginal People). The assessment concluded that changes (reduction) in the availability of furbearers are predicted to result in a residual effect on trapping activities. The effect was rated as low in magnitude, localized in extent, and not significant. An agreement is already in place with the holder of the trapline who would be primarily affected by these changes. With the implementation of mitigation measures, no residual effects to the household economies of Aboriginal families are anticipated.	KwN • Kwadacha Community Meeting (Nov. 5, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Surface Water Quality		
Absence of surface water quality monitoring for inputs into Amazay Lake; potential interaction between contaminated groundwater and surface water	Water quality data have been collected in the Amazay Lake catchment area since 2002. AuRico provided the draft surface water quality baseline report to TKN for review and comment in February 2015. Detailed surface water quality and limnological data for Amazay Lake were provided in a memo prepared specifically for limnological data collected in Amazay Lake between 2003 and 2006, which was included in the Application as Appendix 11-B (Limnology and Water Quality of Amazay (Duncan) Lake).TKN's technical reviewer had the opportunity to review and provide comments on the draft baseline report. Chapter 11 (Surface Water Quality) identifies and analyzes potential effects on local and regional groundwater flow during each Project phase in relation to: changes in groundwater levels, flow patterns and directions; and changes in groundwater quality. The outputs of the numerical groundwater model were used to inform the surface water predictive model for the Project, which was included in the Application as Appendix 11-D (Water Balance and Water Quality Modelling Report) of Chapter 11, Surface Water Quality. Chapter 11 concludes that residual effects were identified for the mine site area include the following: change in nitrate concentrations in Waste Rock Creek during Closure and Post-Closure phases due to predicted water quality; change in total aluminum, copper, and molybdenum concentrations in Waste Rock Creek during Post-Closure phase due to predicted water quality; and change in total selenium concentrations in Waste Rock Creek during Closure and Post-Closure phases due to predicted water quality. Residual effects were also identified for the underground mine area, and include the following: change in total cobalt, chromium, copper, and zinc concentrations in East Cirque Creek during Post-Closure phase due to predicted water quality; and change in total and dissolved aluminum and total iron concentrations in Central Cirque Creek during Post-Closure due to predicted water quality.	TKN • EMC meeting (July 8, 2014)
Adequacy of water quality baseline studies and a need for monitoring	Water quality data have been collected in the Project area since 1996. Results of baseline studies for Thutade Lake, Finlay River, Attycelley Creek, Attichika Creek, and Kemess Creek watersheds are compiled and discussed in Appendix 11-A (Surface Water Quality Baseline Report) from 1996 onwards, with additional Amazay (Duncan) Lake results for 2002 onwards compiled in Appendix 11-B (Limnology and Water Quality of Amazay (Duncan) Lake) and additional Thutade Lake results from 2014 compiled in Appendix 11-C (2014 Thutade Lake Aquatics Baseline Report). These results were used to inform predictive water quality modelling and assessment of potential Project effects on the receiving environment.	TKN • TKN memo to AuRico (Dec. 10, 2014) • Comments on Thutade Lake Aquatics Baseline Report (Apr. 24, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Surface Water Quality *(cont'd)*		
Community perception that the water in the TSF is contaminated	The KS TSF, which is an existing and permitted facility, is anticipated to commence discharge through the permitted spillway in 2015. Results of water quality monitoring in the KS TSF have been used to inform predictive modelling, as described in Appendix 11-D (Water Balance and Water Quality Modelling Report), and consequently inform predictions of water quality in downstream assessment nodes, as assessed in Section 11.6 of Chapter 11, Surface Water Quality of the proposed KUG Project. In July 2015 AuRico and TKN presented the water discharge alternatives for the proposed KUG Project at community meetings in Takla Landing, Tsay Keh, and Kwadacha, and hosted a question and answer period following the presentations to address community concerns. Following an extensive iterative optimization process, including predictive water quality modelling for various water discharge alternatives, AuRico selected Attichika Creek (the TKN's preferred alternative) as the discharge location (Appendix 4-G, Water Management Alternatives Assessment).	TKN • May 31, 2013 EMC meeting KwN • Kwadacha Community Meeting (Nov. 5, 2014)
Comprehensive water quality studies need to be conducted	Water quality data have been collected in the Project area since 1996 in the Attichika Creek, Kemess Creek, and Waste Rock Creek, since 2002 in Attycelley Creek, East Cirque Creek, Central Cirque Creek, and Amazay (Duncan) Lake, since 2003 in Finlay River. Ongoing monitoring has also been carried out at Thutade Lake outflow since 2012 with additional lake monitoring during both open water and under-ice periods. Results of baseline studies for Attichika Creek, Kemess Creek, Waste Rock Creek, Attycelley Creek, East Cirque Creek, Central Cirque Creek, Thutade Lake, and Finlay River are compiled in Appendix 11-A (Surface Water Quality Baseline Report), with Amazay Lake results compiled in Appendix 11-B (Limnology and Water Quality of Amazay (Duncan) Lake), and were used to inform predictive water quality modelling and assessment of potential project effects on the receiving environment.	KwN • Kwadacha Community Meeting (Apr. 7, 2011)
Concern with untreated pit water being discharged (options 3 and 4)	Following an extensive iterative optimization process, including predictive water quality modelling for various water discharge alternatives, AuRico selected Attichika Creek (the TKN's preferred alternative) as the discharge location (Appendix 4-G, Water Management Alternatives Assessment). As part of the discharge alternatives assessment, potential effects to the receiving environment during Construction were minimized by staging directed discharges from the KUG TSF to the natural hydrograph of Attichika Creek, as well as decreasing the amount of water discharged during the final years of the Construction phase. Discharge from the KUG TSF, will be targeted by water treatment at end-of-pipe in Operations.	TKN • water management meeting (Dec. 9, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Surface Water Quality *(cont'd)*		
Concerned that discharging under ice is not a good option for Thutade Lake since flow has stopped	Thutade Lake is no longer proposed as a discharge option (Appendix 4-G, Water Management Alternatives Assessment).	TKN • GoldSim meeting (Jun. 25, 2015)
Concerned that the 12-month continuous discharge assessment for Thutade Lake is not realistic	Thutade Lake is no longer being proposed as a discharge option (Appendix 4-G, Water Management Alternatives Assessment).	TKN • GoldSim meeting (Jun. 25, 2015)
Consideration for water quality standards being developed for culturally significant water bodies	The results of predictive water quality modelling for the receiving environment, including culturally significant water bodies such as Thutade Lake, Amazay (Duncan) Lake, and Finlay River, were screened against existing water quality guidelines as developed by BC Ministry of Environment (MOE) (Section 11.4, Section 11.6 of Chapter 11, Surface Water Quality), to identify any COPC. Water quality standards included guidelines for freshwater aquatic life, livestock, wildlife, drinking water, and agriculture, where guidelines exist, with parameters considered as a COPC if they exceeded the most sensitive of available standards.	TKN • water management meeting (Dec. 9, 2012)
Controlling run-off to avoid water contamination resulting from sedimentation issues	Mitigation approaches for potential effects to surface water quality from sedimentation will follow best management practices, and are discussed in Section 11.5.3 of Chapter 11 (Surface Water Quality), the Surface Erosion and Sediment Control Plan (Section 24.15), and the Surface Water Management Plan (Section 24.16).	TKN • TKN memo to AuRico (Dec. 10, 2014)
Current methodology for assessing water options does not reflect community priorities	In July 2015 AuRico and TKN presented the water discharge alternatives at community meetings in Takla Landing, Tsay Keh, and Kwadacha, and hosted a question and answer period following the presentations to address community concerns. Attichika Creek has been selected as the discharge option for the Project instead of Thutade Lake or Finlay River, based on consultation with TKN First Nations (Appendix 4-G, Water Management Alternatives Assessment). TKN's involvement in the water discharge alternatives assessment is summarized in section 3.6.4.7 of Chapter 3, Information Distribution and Consultation.	KwN • SIC meeting (June 25, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Surface Water Quality *(cont'd)*		
Discharge timing and length of time discharges occur	Discharge from the KUG TSF to Attichika Creek is planned to begin in the third year of the Construction phase, and will continue until the end of the Closure phase. Discharge will occur during six months of the year (i.e., May through October). In Post-Closure, the KUG TSF will be allowed to overflow via a spillway to Waste Rock Creek. A conceptual model for water management, including planned discharges, is provided in Figures 1.3-1 to 1.3-6 of Appendix 11-D (Water Balance and Water Quality Modelling Report).	TKN • water management meeting (Dec. 9, 2014)
Effects to Amazay (Duncan)[3] Lake	Potential effects on surface water quality in Amazay (Duncan) Lake are assessed in Chapter 11 (Surface Water Quality). The results of predictive water quality modelling for the life of the Project were compared to modelled background water quality in Amazay Lake and water quality guidelines to identify any COPCs that would indicate residual effects on the lake (Section 11.6). Predictive water quality modelling did not indicate any residual effects to water quality in Amazay (Duncan) Lake.	KwN • TKN memo to AuRico (Dec. 10, 2014)
Guidelines upon which exceedances and preferences are being based for the discharge alternatives analysis	Screening criteria for predictive water quality results included comparison with applicable BC MOE water quality guidelines. The most sensitive applicable guideline for each parameter was used as a threshold for exceedance.	TKN • water discharge alternatives meeting (Jul. 8, 2015)
High sulphates (and high total dissolved solids; HDS) in the proposed discharge from the HDS lime treatment	HDS lime treatment is not proposed for the Project. Proposed water treatment methods include selenium ion exchange (Selen-IX) treatment and metals removal, as discussed in the Water Treatment Plan (Section 24.18). Water treatment discharges were included in predictive water quality modelling, as described in Appendix 11-D (Water Balance and Water Quality Modelling Report). Results of water quality modelling were screened against modelled background values and applicable water quality guidelines for the downstream receiving environment in Section 11.6 of Chapter 11 (Surface Water Quality). Sulphate was not identified as a COPC in Attichika Creek downstream of the discharge point in any model sensitivity.	TKN • water management meeting (Dec. 9, 2014)

[3] Duncan Lake is also referred to as Amazay Lake.

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Surface Water Quality *(cont'd)*		
Impacts from pipes in Thutade Lake and Finlay River	Thutade Lake and Finlay River are no longer under consideration as discharge options (Appendix 4-G, Water Management Alternatives Assessment).	TLFN • Takla Landing Community Meeting (July 9, 2015) KwN • Kwadacha Community Meeting (July 6, 2015)
Impacts to water quality in Finlay River at Kwadacha	Potential Project-related effects on surface water quality in the Finlay River are assessed in Section 11.6 of Chapter 11 (Surface Water Quality). The results of predictive water quality modelling for the life of the Project were compared to modelled background water quality in the Finlay River as well as water quality guidelines to identify any COPC that would indicate residual effects on the river (Section 11.6). Predictive water quality modelling did not identify any residual effects to water quality in the Finlay River in any model sensitivity.	KwN • TKN memo to AuRico (Dec. 10, 2014)
Inadequate justifications for a three month flow window with the Attichika Lake option	The three month flow into Attichika is no longer under consideration as a discharge option (Appendix 4-G, Water Management Alternatives Assessment).	TKN • GoldSim meeting (Jun. 25, 2015)
Potential contaminant build-up in Thutade Lake and possibility the plume could sink	Thutade Lake is no longer under consideration as a discharge option (Appendix 4-G, Water Management Alternatives Assessment).	TKN • GoldSim meeting (Jun. 25, 2015)
Potential for an emergency resulting in water contamination	AuRico assessed the likelihood and consequence of multiple emergencies that may result in water contamination, including spills of hazardous substances stored on site, leakage or spill of materials with potential risks to the environment, accidental release of contaminants from ore/waste rock stockpiles, and breach or failure of tailings dam or other containment structures Chapter 22 (Accidents and Malfunctions). Chapter 22 concludes that the most common failure mode involved a spill of materials into water or on land; VCs that are expected to be affected by this failure mode include surface water quality, soil quality and quantity, wetlands, and fish and aquatic habitat. The key management measures are described in the Environmental Emergency, Spill and Hazardous Materials Plan (Section 23.6). They include vehicle maintenance, and driver	TKDN • Tsay Keh Community Meeting (July 7, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Surface Water Quality *(cont'd)*		
Potential for an emergency resulting in water contamination *(cont'd)*	training, and mitigation including rapid detection, containment, and recovery of spilled materials. The residual effects of failure modes were assessed to be not significant except for the KUG TSF East Dam failure event. Failure of the dam would affect surface hydrology, surface water quality, wetlands, listed ecosystems, fish and aquatic habitat, western toad, and current use of lands for traditional purposes in Kemess Creek, Attichika Creek, and potentially Thutade Lake. In the rare event of a worst-case dam failure, these VCs could experience significant effects. The East Dam will be constructed to meet or exceed Canadian Dam Association (CDA) Dam Safety Guidelines (2007; revised 2013) as well as requirements outlined in the *Mines Act* (1996).	
Preference for monitoring stations downstream on the Finlay River with respect to Finlay River discharge option	Finlay River is no longer under consideration as a discharge option (Appendix 4-G, Water Management Alternatives Assessment).	KwN • water management meeting (Dec. 9, 2014)
Selenium management	The potential effects of selenium on water quality are assessed in Section 11.6 of Chapter 11 (Surface Water Quality). Management measures for water quality and plans required to ensure they are implemented effectively are described in the Fish and Aquatics Effects Monitoring Plan (Section 24.7 of Chapter 24, Environmental Management and Monitoring Plans) and the Surface Water Management Plan (Section 24.16). Predictive water quality modelling did not identify selenium as a COPC in the Project RSA, and did not identify any significant residual effects on the downstream receiving environment due to selenium concentrations (Section 11.6). A Selenium-IX treatment plant will treat water pumped from the Selenium Collection Pond to the KUG TSF during Construction, and will treat discharges from the KUG TSF during Operations and Closure.	KwN • WG meeting (Jun. 26, 2014) • Kwadacha Community meeting (July 6, 2015) TKN • water management meeting (Dec. 9, 2014)
Susceptibility to elevated levels of molybdenum, cadmium and other trace metals in local water and vegetation	Results of predictive water quality modelling for the downstream receiving environment are assessed for parameters with existing water quality guidelines, including total molybdenum and total and dissolved cadmium (Section 11.6 of Chapter 11, Surface Water Quality).	TKN • Chu Cho Terrestrial Monitoring Plan (Mar. 30, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Surface Water Quality *(cont'd)*		
Susceptibility to elevated levels of molybdenum, cadmium and other trace metals in local water and vegetation *(cont'd)*	Potential exposure to COPCs through the ingestion of drinking water and vegetation (and other routes of exposure) is assessed in Chapter 18, Human Health. The Application integrates the results of predictive studies and other information (e.g., water quality predictions, air quality predictions, country foods information, land use human receptors) to characterize the potential residual effects of the Project on human health via changes in air quality, drinking water quality, country foods quality (including food from vegetation and animals), and noise levels. The Project-related human health risk assessment (HHRA) (Appendix 18-B) assessed the risk associated with COPCs in drinking water quality, air quality, country foods quality, and noise levels during the Construction and Operations phases; the assessment was designed following methodology outlined by Health Canada. The HHRA included the assessment of deposition of dustfall (containing metals) onto plant surfaces as well as from dustfall onto soil and the subsequent uptake into plants, which are then consumed by country food species. Metals that bio-accumulate were included in the assessment. Chapter 18 concluded that the risk to human health during the Construction and Operations phases was similar to baseline conditions, and residual effects to human health were not identified. Therefore, the Project does not anticipated effects the quality of local water or harvested vegetation.	
The use of the assimilative capacity of the receiving environment may not be agreeable if it enables the thresholds of concentrations of concern to be elevated	The selection of the preferred discharge alternative incorporated an extensive iterative optimization process, including predictive water quality modelling for various water discharge alternatives, AuRico has selected Attichika Creek (the TKN's preferred alternative) as the proposed discharge location (Appendix 4-G, Water Management Alternatives Assessment). Assessment of potential effects to water quality of the receiving environment is presented in Section 11.6 of Chapter 11 (Surface Water Quality).	TKN • water management meeting (Dec. 9, 2014)
Using Thutade Lake for dilution is not an acceptable approach	Thutade Lake is no longer under consideration as a discharge option (Appendix 4-G).	TKN • water discharge alternatives meeting (July 8, 2015)
Water management alternatives should consider sensitivity of Thutade Lake and Finlay River	The water discharge alternatives assessment considered the sensitivity of Thutade Lake and the Finlay River, producing water quality predictions for both waterbodies, and neither of these options were selected as discharge sites (Appendix 4-G, Water Management Alternatives Assessment). Water quality predictions were produced for Thutade Lake and the Finlay River for several model sensitivities (Appendix 11-D, Water Balance and Water Quality Modelling Report). No residual effects on surface water quality were identified for Thutade Lake or the Finlay River (Section 11.6).	TKN • water management meeting (Dec. 9, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Surface Water Quality *(cont'd)*		
Water Quality- General	The potential effects of project activities on surface water quality are assessed in Chapter 11 (Surface Water Quality). Current water quality monitoring data are summarized in Section 11.4, and potential water quality effects, mitigation, and residual effects are assessed in Sections 11.5 and 11.6. The water quality assessment follows industry standard best practices and regulatory guidelines (as described in Section 11.2), and includes qualitative assessment of potential effects and quantitative assessment using predictive water quality modelling. Water treatment represents the primary surface water quality mitigation and management strategy for the Project and will be focused at the KUG TSF and related discharge. Direct discharge from the KUG TSF to Attichika Creek will occur during Construction, Operations, and Closure phases. Chapter 11 concludes that no COPC were predicted to occur during the Construction, Operations, Closure, and Post-Closure phases in base case modelling for Kemess and Attichika creeks. Chapter 11 concludes that residual effects were identified for the mine site area include the following: change in nitrate concentrations in Waste Rock Creek during Closure and Post-Closure phases due to predicted water quality; change in total aluminum, copper, and molybdenum concentrations in Waste Rock Creek during Post-Closure phase due to predicted water quality; and change in total selenium concentrations in Waste Rock Creek during Closure and Post-Closure phases due to predicted water quality. Residual effects were also identified for the underground mine area, and include the following: change in total cobalt, chromium, copper, and zinc concentrations in East Cirque Creek during Post-Closure phase due to predicted water quality; and change in total and dissolved aluminum and total iron concentrations in Central Cirque Creek during Post-Closure due to predicted water quality. Results of water quality predictive modelling and residual effects assessment informed effects assessments for Fish and Aquatic Habitat (Chapter 14), Wildlife (Chapter 15), and Human Health (Chapter 18).	TKDN • Tsay Keh Community Meeting (April 6, 2011) TLFN • Takla Landing Community Meeting (Mar. 16, 2011) TKN • TKN memo to AuRico (Dec. 10 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Terrestrial Ecology		
Potential spread of invasive plant species	The potential spread of invasive plant species is discussed in Section 13.5.1 and Section 13.5.3 of Chapter 13 (Terrestrial Ecology). This chapter notes that rapid, visual surveys of periphyton presence, abundance, and type have been conducted in regional creeks of the Thutade Watershed for a number of years with specific attention paid to the possible presence and abundance of the diatom *Didymosphenia geminata* (didymo), a suspected invasive species in many watersheds. This species was reported as present (but not common) in the Kemess and Attichika watersheds during 1992 and 1993 baseline surveys for the KS Mine, which indicated that it has been present in the area for at least that long (i.e., two years) and that it may occur naturally in this area. Didymo is relatively unique among nuisance algal species in that it thrives in very low-nutrient waters. Although we are unaware of any way to eliminate or reduce didymo from local creeks, a key strategy to potentially reduce the transmission of didymo to other waterbodies is through establishment of a "no-felt" policy for waders used in local creeks. Such a policy was instituted by KS Mine approximately 10 years ago for all in-stream activities associated with the mine. The KUG studies have not indicated a declining trend in juvenile or adult fish in the Kemess Watershed since KS TSF construction, or that increases in didymo densities in South Kemess Creek have resulted in substantial changes to availability of prey items (benthic invertebrates) for juvenile fish. The general observation during fisheries surveys in the watershed associated with the KUG Project is that the thick mats noted 3-5 years ago have declined in recent years. There is ongoing research regarding didymo in streams around BC and we suspect that what has been observed at Kemess is similar to many other BC streams where fishermen and biologists have walked with felt wader boots. However, it is important to note that didymo is native to BC and that this species was found at low densities in the initial KS Mine baseline studies in the 1990s. Given what appears to be declining abundances of didymo in watersheds that are being carefully monitored to assess mining activities, the Project considers that pursuing habitat restoration activities in these watersheds is inappropriate. Section 13.5.4.1 provides the mitigation measures outlined to avoid Project related introduction and the spread of invasive plants.	TKN • Chu Cho Terrestrial Monitoring Plan (Mar. 30, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Traditional Knowledge and Traditional Land Use Study		
Disappointment in level of detail in development of the Traditional Knowledge and Land Use Study (TK/TLUS)	AuRico understands that TKN and Crossroads have collaborated to fill in information gaps and revise the original TK/TLUS (Crossroads 2015) (Appendix 20-A).	TKDN • Letter (Mar. 9, 2015) • EMC meeting (Mar. 17, 2015)
Need to integrate TK and the knowledge of Elders into the EA	AuRico funded the TK/TLUS (Crossroads 2015) (Appendix 20-A). The information in this report has been considered and, wherever possible, incorporated into the effects assessment. Examples of the incorporation of TK into the Project design and EA include: AuRico selected the portal site to avoid interaction with Amazay Lake, relocation of the access road and conveyor system away from higher value fish habitats in El Condor Creek and elevated the conveyor and designed gravel ramps over the proposed Discharge Waterline to facilitate the passage of wildlife. AuRico engaged the TKN in the assessment of water discharge alternatives to incorporate TKNs perspectives and selected TKN's preferred discharge alternative (Attichika Creek). Each EA chapter identifies where Aboriginal community information is not available.	KwN • Kwadacha community meeting (Apr. 7, 2011)
Process for identifying project impacts on traditional land use	The process for identifying project impacts on traditional land use follows the methodology in Chapter 8 (Effects Assessment Methodology). Potential changes to traditional land use are assessed in Chapter 20 (Changes to the Environment on Aboriginal Peoples).	TKN • TK/TLUS memo (Mar. 5, 2015)
Protection of intellectual property, traditions or practices of TKN First Nations	AuRico is committed to avoiding or minimizing effects to TKN intellectual property, traditions or practices and has designed the Project in a way that minimizes these effects. For example: The conveyor in Kemess Valley is elevated to avoid becoming a barrier to moose, based on input from the TLFN Chief and AuRico consulted with TKN on the selection of the portal location. Additionally, AuRico has a written agreement not to use Amazay (Duncan) Lake in any way for mining purposes, in consideration of the importance of the lake to TKN members. AuRico supported the development of a TK/TLUS (Crossroads 2015) that was provided to inform the EA (Appendix 20-A). The TK/TLUS identifies TKN traditional knowledge, land and resource use, and cultural resource information relevant to the Project area. All three TKN nations were directly involved in the study, including involvement in planning, interviews, and review of the final report. TKN also provided direction on what TK information could be included or shared in the report, and which was proprietary. AuRico is committed to engage with TKN to identify additional mitigation measures to avoid of minimizes effects to TKN traditions and practices.	TKN • TK/TLUS (Mar. 5, 2015)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Traditional Knowledge and Traditional Land Use Study *(cont'd)*		
Restricted ability to provide quantitative health data for the TK/TLUS	AuRico acknowledges the limitation of the TK/TLUS data collection process with respect to quantitative health data and re-focused the assessment of effects to health and socio-economic conditions (Chapter 20, Effects of the Environment on Aboriginal People) to be more qualitative in nature.	TKN • TK/TLUS memo (Mar. 5, 2015)
Wildlife		
Adequacy of bird studies and effects to birds	Data for migratory landbirds (2006) and waterbirds (2004, 2006, 2007 to 2009) as well as raptors (2006) were collected during baseline studies (see Appendix 15-A). Migratory waterbirds, migratory landbirds and raptors are VCs assessed in Chapter 15 using a habitat based approach. Mitigation and monitoring is outlined in Chapter 24.19 Wildlife Management and Monitoring Plan (Chapter 24, Environmental Management and Monitoring Plans) and ensures compliance with the *Migratory Birds Convention Act* (1994), the *BC Wildlife Act* (1996) and the *Species at Risk Act* (2002). No significant residual or cumulative effects were identified for birds.	TKDN • Tsay Keh community meeting (Apr. 6, 2011)
Concern about gaps in, and the variability of, habitat suitability data	Habitat suitability mapping was used for the assessment of habitat loss and alteration as well as sensory disturbance in Chapter 15 (Wildlife and Wildlife Habitat) for mammal VCs. The modelling assumptions and results are provided in Appendix 15-B. Habitat suitability mapping used the terrestrial ecosystem mapping data available for the Wildlife LSA. Habitat suitability mapping adhered to provincial standards (RIC 1999). Baseline survey data (Appendix 15-A) was overlaid on habitat suitability modelling results and models were adjusted if needed (e.g. hoary marmot modelling).	KwN • EMC meeting (July 8, 2014)
Concern about wildlife populations and need for monitoring wildlife populations (including blood sampling) by TKDN	Baseline data on wildlife is provided in Appendix 15-A. Chemical hazards are an effect that is assessed in Chapter 15 (Wildlife and Wildlife Habitat). No residual effects are anticipated as a result of chemical hazards to any wildlife VCs. Mitigation and monitoring is outlined in Chapter 15 and 24.19, Wildlife Management and Monitoring Plan. Water quality will be monitored throughout the life of the Project, and should concentrations of chemicals of potential concern exceed guideline concentrations for wildlife and baseline concentrations plus 10%, or for bio-accumulative chemicals, if concentrations are greater than 10% relative to baseline concentrations, and outside of the natural baseline variability, aquatic vegetation, sediment, and benthos will be monitored and should COPCs increase in these media relative to baseline or occur at a concentration (toxicity threshold) that could pose a hazard to wildlife via uptake through the food web, adaptive mitigation will be implemented. AuRico funded a terrestrial (2015) monitoring program at KUG undertaken by TKDN. TKN involvement in monitoring programs for KUG has been a topic of discussion at the EMC, as well as during negotiations for the IBA.	TKDN • Tsay Keh community meeting (Nov. 6, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Wildlife *(cont'd)*		
Concern that wildlife will drink from contaminated tailings ponds	Chemical hazards are an effect that is assessed in Chapter 15 (Wildlife and Wildlife Habitat), which concluded that after mitigation, no residual effects are anticipated for wildlife. Mitigation and monitoring is outlined in Chapter 24.19, Wildlife Management and Monitoring Plan. Mitigation measures will include deterrent measures to keep wildlife from accessing the TSF and collection/seepage ponds until these ponds meet water quality guidelines for wildlife.	TLFN • Takla Landing community meeting (Mar. 16, 2011) TKN • TKN memo to AuRico (Dec. 10, 2014)
Consider marten under the category of "cultural use of lands and resources for traditional purposes" rather than as a VC or sub-component of wildlife	TKN use of American marten has been captured within the TK/TLUS undertaken by Crossroads (2015) (Appendix 20-A). The information from the TK /TLUS as well as the results of the Project's effects on wildlife, including marten, has been incorporated into the assessment of effects related to the current use of lands and resources for traditional purposes in Section 20.8.1.3 of Chapter 20 (Effects of Changes to the Environment on Aboriginal People). American marten are also included as a focal species for the assessment on furbearers in Chapter 15 (Wildlife and Wildlife Habitat). Habitat suitability modelling was conducted for this species as well (Appendix 15-B). Disruption of movement was identified as a non-significant residual effect for American marten. Ramps will be constructed over the proposed discharge waterline from the KUG TSF to Attichika creek. Other mitigations for American marten are discussed in Section 24.19, Wildlife Management and Monitoring Plan.	TKN • EMC meeting (July 8, 2014) KwN • EMC meeting (July 8, 2014)
Disruption of animal migrations as a result of Project infrastructure creating barriers	Disruption of movement is one of the residual effects assessed in Chapter 15 (Wildlife and Wildlife Habitat). Mitigation and monitoring is outlined in section 24.19, Wildlife Management and Monitoring Plan (Chapter 24, Environmental Management and Monitoring Plans). Disruption of movement is a non-significant residual effect for woodland caribou, moose, grizzly bear, American marten, wolverine, and western toad due to the proposed Access Corridor and the proposed discharge waterline. Mitigation will include the creation of ramps over the proposed discharge waterline in order to facilitate movement over it.	KwN • TKN memo to AuRico (Dec. 10, 2014)
Effects of all season road access into the Project area on mountain goats	Mountain goats are a VC included in Chapter 15 (Wildlife and Wildlife Habitat). The effect of road use is assessed in consideration of both sensory disturbance and mortality (e.g., vehicle interactions). The assessment determined that no significant residual or cumulative effects were identified for mountain goat. Mitigation and monitoring is outlined in section 24.19, Wildlife Management and Monitoring Plan (Chapter 24, Environmental Management and Monitoring Plans).	TLFN • Working Group meeting (June 26, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Wildlife *(cont'd)*		
Effects of drilling on groundhogs in the Project area	Hoary marmots are a VC included in Chapter 15 (Wildlife and Wildlife Habitat). The assessment considered potential effects of habitat loss and alteration as well as sensory disturbance. No significant residual or cumulative effects were identified for hoary marmot. Mitigation and monitoring is outlined in section 24.19, Wildlife Management and Monitoring Plan (Chapter 24, Environmental Management and Monitoring Plans).	TLFN • Takla Landing community meeting (Mar. 16, 2011)
Effects of industrial noise on wildlife	Sensory disturbance is one of the effects assessed in Chapter 15 (Wildlife and Wildlife Habitat) and includes results of noise modelling. Different noise thresholds are used related to general Project noise, blasting, and instantaneous traffic noise. Sensory disturbance was not assessed as a significant residual or cumulative effect to wildlife. Mitigation and monitoring is outlined in section 24.19, Wildlife Management and Monitoring Plan (Chapter 24, Environmental Management and Monitoring Plans).	TLFN • TKN memo to AuRico (Dec. 10, 2014) KwN • TKN memo to AuRico (Dec. 10, 2014)
Effects of new roads	The effect of the Project access corridor is assessed for wildlife in the Wildlife and Wildlife Habitat EA (Chapter 15), in the habitat loss and alteration, sensory disturbance, and mortality sections. Mitigation and monitoring is outlined in the Wildlife Management and Monitoring Plan (section 24.19 of Chapter 24, Environmental Management and Monitoring Plans). No significant residual or cumulative effects were identified for wildlife. Public access to the access corridor will be restricted.	TLFN • Takla Landing community meeting (Mar. 16, 2011)
Effects of road access on wildlife	The effect of road use is assessed in both the sensory disturbance and mortality sections of Chapter 15 (Wildlife and Wildlife Habitat). No significant residual or cumulative effects were identified for wildlife. Mitigation and monitoring is outlined in section 24.19, Wildlife Management and Monitoring Plan (Chapter 24, Environmental Management and Monitoring Plans).	TKN • EMC meeting (June 11, 2014)
Effects of roads and access on wildlife, including post closure when access won't be as tightly controlled	The effect of road use is assessed in both the sensory disturbance and mortality sections of Chapter 15 (Wildlife and Wildlife Habitat). The effect of the use of the ORAR is assessed in Appendix 15-C. Sensory disturbance due to instantaneous traffic noise for the migratory landbird, olive-sided flycatcher, was identified as a non-significant residual effect. Indirect mortality due to increased access along the ORAR during the winter was identified as a not significant residual effect for woodland caribou, moose, and mountain goat. AuRico will develop and implement a monitoring program along the ORAR that will document incidental observations of recreational users of the ORAR during winter. Deactivation of Project roads will begin in Closure and full deactivation will occur in Post-closure. Mitigation and monitoring is outlined in section 24.19 (Wildlife Management and Monitoring Plan), section 24.2 (Access Management Plan), as well as the Closure and Reclamation Plan (Chapter 6).	TKDN • TKN memo to AuRico (Dec. 10, 2014) TLFN • EMC meeting (Jun. 11, 2014) • TKN memo to AuRico (Dec. 10, 2014) KwN • TKN memo to AuRico (Dec. 10, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Wildlife *(cont'd)*		
Effects of wildlife-vehicle interactions	Wildlife mortality due to vehicle-animal interactions is assessed in Chapter 15 (Wildlife and Wildlife Habitat). No significant residual or cumulative effects were identified for wildlife. Mitigation and monitoring is outlined in section 24.19, Wildlife Management and Monitoring Plan.	TKN • TKN memo to AuRico (Dec. 10, 2014) KwN • TKN memo to AuRico (Dec. 10, 2014)
Effects to mountain goats, including effects from access roads and corridors and consideration should be given to goats' travel corridors	Mountain goat has been included as a VC in Chapter 15 (Wildlife and Wildlife Habitat). The effect of road use is assessed in both the sensory disturbance and mortality, and no significant residual or cumulative effects were identified for mountain goat. Mitigation and monitoring is outlined in section 24.19, Wildlife Monitoring and Management Plan (Chapter 24, Environmental Management and Monitoring Plans).	KwN • EMC meeting (July 8, 2014)
Effects to wildlife and wildlife habitat, including effects from tunnels and underground operations	Effects to wildlife and wildlife habitat are assessed in Chapter 15 (Wildlife and Wildlife Habitat). The assessment considered potential effects from continuous project noise (i.e., sensory disturbance) as well as potential effects of habitat loss and alteration due to the subsidence cone resulting from underground operations. No significant residual or cumulative effects were identified for wildlife. Mitigation and monitoring is outlined in section 24.19, Wildlife Monitoring and Management Plan (Chapter 24, Environmental Management and Monitoring Plans).	TKDN • Tsay Keh community meeting (Apr. 6, 2011) TLFN • Takla Landing community meeting (Mar. 16, 2011)
Effects to wildlife in Moose Valley, and to groundhogs who feed in the mine site	Moose Valley is located within the regional study area. However, effects to wildlife will be constrained to the Wildlife LSA where Project infrastructure and activities will occur. No effects are anticipated to wildlife in Moose Valley. Hoary marmots (groundhogs) are a VC and potential effects to this species are assessed in Chapter 15 (Wildlife and Wildlife Habitat). No significant residual or cumulative effects were identified for hoary marmot. Mitigation and monitoring is outlined in section 24.19, Wildlife Monitoring and Management Plan (Chapter 24, Environmental Management and Monitoring Plans).	TLFN • TKN memo to AuRico (Dec. 10, 2014) KwN • TKN memo to AuRico (Dec. 10, 2014)
Increased traffic and maintenance of the ORAR resulting in increased wildlife-vehicle interactions, especially for fishers and other furbearers	Project use of the ORAR is assessed for wildlife in Appendix 15-C. AuRico proposes to initiate a Wildlife Incidents and Siting reporting program along the ORAR for the Project, such that a record of empirical data on wildlife occurrence and direct wildlife mortality along the ORAR will be developed through the life of the Project. The average number of AuRico vehicles using the ORAR per day during Operations will be 12 with an average of 1 vehicle per hour on the ORAR. This is less than traffic levels associated with KS Mine.	TLFN • EMC meeting (June 11, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Wildlife *(cont'd)*		
Increased traffic and maintenance of the ORAR resulting in increased wildlife-vehicle interactions, especially for fishers and other furbearers *(cont'd)*	Direct mortality was not identified as a residual effect for any of the wildlife valued components due to use of the ORAR by AuRico. Indirect mortality due to increased access along the ORAR during the winter was identified as a non-significant residual effect for woodland caribou, moose, and mountain goat. AuRico will develop and implement a monitoring program along the ORAR that will document incidental observations of recreational users of the ORAR during winter.	
Methodology for the wildlife habitat suitability/capability mapping and would like to see wildlife baseline reports	The methodology for wildlife habitat capability mapping is provided in Appendix 15-A and the wildlife habitat suitability mapping is provided in in Appendix 15-B. Habitat suitability mapping adhered to provincial standards (RIC 1999). The draft wildlife and wildlife habitat baseline report was provided to the TKN in September, 2015.	TKN • E-mail (July 14, 2014)
Mountain goat is an important species to TKN, and concern that baseline info is inadequate, and that the species has been excluded from the VCs	Mountain goat has been included as a VC in Chapter 15 (Wildlife and Wildlife Habitat). AuRico considers the baseline data adequate for the evaluation of potential project related effects. The Application includes impacts to habitat for mountain goat, both directly from habitat loss and alteration and indirectly from noise or human use disturbance. Available information regarding the proposed Ungulate Winter Range for mountain goats (U-7-30) will be reviewed and potential Project effects on these habitats will be assessed. No significant residual or cumulative effects were identified for mountain goat.	TKN • EMC meeting (June 11, 2014)
Potential for impacts on caribou habitats and the adequacy of proposed mitigations	Woodland caribou are a VC and are assessed in Chapter 15 (Wildlife and Wildlife Habitat). Mitigation and monitoring is outlined in section 24.19, Wildlife Monitoring and Management Plan (Chapter 24, Environmental Management and Monitoring Plan). No significant residual or cumulative effects were identified for caribou.	TKN • Chu Cho Terrestrial Monitoring Plan (Mar. 30, 2015)
Project effects on caribou migration	Woodland caribou are a VC and are assessed in Chapter 15 (Wildlife and Wildlife Habitat). Mitigation and monitoring is outlined in section 24.19, Wildlife Monitoring and Management Plan (Chapter 24, Environmental Management and Monitoring Plan). Effects on caribou migration are considered in the section that assesses disruption to movement. No significant residual or cumulative effects were identified for caribou.	TKDN • Tsay Keh Community Meeting (Nov. 6, 2014)

Appendix 3-E. Aboriginal Groups Comment Tracking Table

Comment	AuRico Response	Raised By /Comment Source/Date
Wildlife *(cont'd)*		
Wildlife studies need to be conducted; some people have observed a declining number of sheep and goats in the area since the mine (Kemess South) started	Wildlife baseline studies are summarized in Appendix 15-A. Baseline surveys included ungulate aerial surveys in multiple years within the local study area as well as ground-based surveys for animal sign. Mountain goats are a VC in Chapter 15(Wildlife and Wildlife Habitat). No residual effects of the Project were predicted for mountain goats. There have been very few observations of Stone's sheep in the Project area and these have been to the east of the existing KS TSF where no further develop for the KUG Project will occur.	KwN • Kwadacha community meeting (Apr. 7, 2011)