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**CASINO MINING CORPORATION
CASINO PROJECT**

**CONCORDANCE TABLE TO THE EXECUTIVE COMMITTEE'S REQUEST FOR
SUPPLEMENTARY INFORMATION**

On January 27, 2015, the Executive Committee requested that Casino Mining Corporation (CMC) provide supplementary information for the Casino Project (YESAB Project No. 2014-0002) to enable the Executive Committee to commence Screening. The Executive Committee considered received comments from various First Nations, Decision Bodies and regulators on the adequacy of the Project Proposal in the preparation of the Adequacy Review Report (ARR). Casino Mining Corporation is providing this Supplementary Information Report (SIR) to comply with the Executive Committee's Adequacy Review Report; CMC anticipates that the information in the SIR and Proposal, when considered together, is adequate to commence Screening.

The Executive Committee has 449 requests for supplementary information related to the Project Proposal submitted on January 3, 2014. Request # refers to the assigned identification number in the ARR. These requests are listed in the concordance table with the corresponding location of the supplementary information within the SIR. Some responses require detailed technical information, data, and figures. Where necessary, this additional supporting information is provided as appendices to the SIR.

Request #	Request for Supplementary Information	Response
R1	All information and rationale used for the selection of the proposed tailings management facility over alternative disposal methods.	Section A.4.2.1.1 Appendix A.4A Tailings Management Facility Construction Material Alternatives
R2	Alternative dam construction methods to using cyclone sand.	Section A.4.2.1.2 Appendix A.4A Tailings Management Facility Construction Material Alternatives
R3	All information and rationale used to justify the proposed road alignment over alternative alignments.	Section A.4.2.2.1 Appendix A.4B Information on Alternative Access Road Alignments
R4	Identify whether broad-based stakeholder risk assessment processes, such as failure modes and effects analysis, will be completed and/or whether external expert review panels will be used as internal quality controls to guide the project.	Section A.4.3.1
R5	Identify if and how independent regulatory audits will be conducted.	Section A.4.3.2
R6	Describe how best practices, in relation to oversight, will be applied to the Project given the scale and nature of challenges associated with the proposed activities and site.	Section A.4.3.3
R7	A description of all other staging and preparation activities. For example, equipment, fuel, and material staging for the upgrade to the Freegold Road and construction of the Freegold Road Extension.	Section A.4.4.1

Request #	Request for Supplementary Information	Response
R8	Describe the interdependency of and critical path for staging and construction activities.	Section A.4.4.2
R9	Details regarding planned barging activity, including frequency, temporal periods, and types of freight anticipated by barge. Additionally, please describe any ancillary activities associated with barging, such as landing sites and access road.	Section A.4.4.3
R10	The reports that show results of metallurgical testing and sulphur removal performance from 2009 and 2010 bench tests, as well as the 2012 pilot test by G&T.	<p>Section A.4.5.1 Appendix A4.N Scoping Level Assessment of Casino Property Appendix A4.O Advanced Metallurgical Assessment of the Casino Copper Gold Project Appendix A.4P Production of Environmental Tailings Samples for the Casino Deposit</p>
R11	Additional information to support the feasibility of the sulphide removal process. Details should include: a. detailed description of the sulphide removal process; b. how the process will account for variations in the mineral composition of processed ore and the large tonnage of tailings; and c. QA/QC for tailings classification including a detailed schedule for testing.	<p>Section A.4.5.2 Appendix A4.O Advanced Metallurgical Assessment of the Casino Copper Gold Project</p>
R12	Additional information on the NAG tailings, or cyclone sand, produced through the sulphide removal process. Details should include: a. data to show that the sulphide removal will be effective for all ore types; b. sulphide levels required to produce non-acid generating cyclone sand and tailings; c. residual sulphide concentrations; d. how the sulphide removal process will be managed and how the cyclone sand will be monitored and tested during operation to ensure that the required performance limits are consistently achieved; and e. any remedial measures that may be required should the sulphide removal process be shown to be ineffective.	<p>Section A.4.5.3 Appendix A4.N Scoping Level Assessment of Casino Property Appendix A4.O Advanced Metallurgical Assessment of the Casino Copper Gold Project Appendix A.4P Production of Environmental Tailings Samples for the Casino Deposit Appendix A.22H ML/ARD Management Plan</p>

Request #	Request for Supplementary Information	Response
R13	Detailed description of the temporary construction camp including: a. layout of infrastructure such as camp facilities, generators, sewage disposal system, fuel storage, and generators; b. proximity to surface water; c. human-wildlife conflict prevention; and d. fuel storage requirements and capacity of diesel generators.	Section A.4.6.1.1 Appendix A.22A Waste and Hazardous Materials Management Plan Appendix A.12A Wildlife Mitigation and Monitoring Plan
R14	Detailed description of activities required for construction of camp including: a. site preparation such as clearing, grubbing, and disposal of materials; b. construction material volumes and sources (e.g. granular material requirements); and c. anticipated timing and duration of the proposed activities.	Section A.4.6.1.2
R15	Details and information regarding the authorization requirements of the proposed alignment through Settlement Lands.	Section A.4.6.1.3
R16	Discussion of potential impacts to values associated with Settlement Lands and mitigations proposed to address these effects.	Section A.4.6.1.4
R17	Describe progress on the Road Use Agreement and relevant details that informed the Road Management Plan.	Section A.4.6.1.5
R18	A detailed Road Management Plan for the entire Freegold Road. Specific details for the Freegold Road extension should include: a. description of what other users will have access to the Freegold Road extension; and b. description of the legal instruments and measures that will be implemented to control access to the Freegold Road extension.	Section A.4.6.1.6 Appendix A.22E Road Use Plan
R19	Please confirm that the Road Use Plan, the Extension Access Management Plan, and the Traffic Management Plan refer to the same management plan.	Section A.4.6.1.7 Appendix A.22E Road Use Plan
R20	Reconcile the intention to decommission the access road with the need to maintain access in order to monitor and maintain permanent infrastructure. Details should include a detailed discussion of access requirements for on-going monitoring and maintenance of site infrastructure and how these activities will be undertaken if the road is decommissioned.	Section A.4.6.1.8
R21	A breakdown of Project related traffic volumes, by vehicle type, for the Alaska, North Klondike, and South Klondike highways. Provide a comparison against current traffic levels and capacities including seasonal fluctuations.	Section A.4.6.2.1
R22	Implications of projected traffic due to this Project on the Alaska, North Klondike, and South Klondike highways.	Section A.4.6.2.2

Request #	Request for Supplementary Information	Response
R23	Details on fleet management to ensure rapid response to possible accidents or spills.	Section A.4.6.2.3 Appendix A.22B Spill Contingency Management Plan Appendix A.22A Waste and Hazardous Materials Management Plan
R24	Describe if weight restrictions are predicted to interfere with Project logistics including the anticipated frequency for which a special variance permit may be requested.	Section A.4.6.2.4
R25	Describe maximum predicted haulage weights, including maximum anticipated weights for the importation of equipment and infrastructure.	Section A.4.6.2.5
R26	Traffic projections for mine related traffic within Carmacks, detailed by vehicle class and type, prior to the Carmacks by-pass becoming operational.	Section A.4.6.3.1
R27	A traffic management plan for routing traffic through Carmacks prior to the completion of the Carmacks by-pass. Details should include: a. route through Carmacks; b. timing of transportation activities (e.g. daily, weekly and monthly restrictions); c. safety of residents with particular focus given to routes with no pedestrian sidewalks; d. communication with residents within community; and e. congestion aversion.	Section A.4.6.3.2 Appendix A.22E Road Use Plan
R28	Describe the sourcing of primary mine materials, delineating supplies arriving from Skagway from those from British Columbia and elsewhere. Please distinguish between materials such as primary flotation supplies, heap leach supplies, lubricants, fuels, and cyanide.	Section A.4.6.4.1
R29	Confirm that the export plan is, or will be, logistically possible.	Section A.4.6.4.2 Appendix A.4B Information on Alternative Access Road Alignments

Request #	Request for Supplementary Information	Response
R30	<p>Describe, as best as possible (if data are unavailable, please indicate anticipated rates of use), the frequency, weight, size, truck type, and carrying capacity of trucks carrying:</p> <ul style="list-style-type: none"> a. pebble lime; b. sodium disobutyl dithiophoshinate; c. sodium diethyl dithiophoshinate; d. methyl isobutyl caribinol; e. potassium xanthate; f. sodium hydro-sulphide; g. sodium cyanide; h. sodium hydroxide; i. hydrochloric acid; j. sulphuric acid; k. ammonium nitrate; l. diesel; m. lubricants; n. liquefied natural gas; o. ore concentrates; and p. other hazardous materials. 	Section A.4.6.5.1
R31	<p>Additional detail in the Water Management Plan that includes all Project components and phases. Details should include:</p> <ul style="list-style-type: none"> a. appropriate figures and plans illustrating site water management, including flow sheet information such as monthly water volumes; and b. figures, plans, and sections for key collection and conveyance facilities associated with the Project. 	Section A.4.7.1
R32	<p>A description of the methodology used to determine flows for storm events including supporting information such as catchment areas, time of concentrations, inclusion of rain and snow melt events, design events, and results.</p>	<p>Section A.4.7.2.1 Appendix A.7A Variability Water Balance Model Report</p>
R33	<p>Detail and describe the methodology and references used to determine the probable maximum precipitation in relation to conveyance channel design and events pond standards.</p>	Section A.4.7.2.2
R34	<p>Typical cross-sections and design drawings of alignments for diversion ditching across the project site with particular focus around the HLF including:</p> <ul style="list-style-type: none"> a. confining embankment; b. access road section; and c. event ponds area. 	<p>Section A.4.7.2.3 Appendix A.4C Feasibility Design of the Heap Leach Facility</p>
R35	<p>A discussion of measures to be taken should one or more sections of the proposed heap leach facility (HLF) diversion ditches be found to be ineffective or should excessive erosion become an issue.</p>	Section A.4.7.2.4

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R36	A discussion of alternatives that CMC considered, including justification and rationale for the use of the proposed ditches.	Section A.4.7.2.5 Appendix A.4C Feasibility Design of the Heap Leach Facility
R37	A description of the diversion ditch on the southwest side of the HLF, including a drawing indicating its proximity to the edge of Byrnelson Creek north tributary sub-watershed. Include a discussion of potential effects to and relevant mitigations for this watershed.	Section A.4.7.2.6
R38	Additional information regarding design of channels in the area that will be susceptible to erosion.	Section A.4.7.2.7
R39	Rationale for directing various non-contact water sources into the TMF. Include a discussion of how non-contact water will be managed throughout the life of the Project.	Section A.4.7.2.8
R40	Further rationale for sizing of the water management pond and sedimentation ponds in terms of sediment removal and confirm if the proposed sizes will meet objectives.	Section A.4.7.3.1 Appendix A.4D Report on the Feasibility Design of the TMF
R41	Clarify whether the size of the event pond is for managing return period rainfall events or return period snow melt-rain events.	Section A.4.7.3.2
R42	Details and rationale on the selection of return period design criteria for all the WMP components during all phases of the Project, including long-term closure. Details should include calculation of the failure probabilities.	Section A.4.7.4.1 Appendix A.4C Feasibility Design of the Heap Leach Facility Appendix A.4D Report on the Feasibility Design of the TMF
R43	Detailed information on the sources and quantities of suitable borrow materials.	Section A.4.8.1.1 Appendix A.4C Feasibility Design of the Heap Leach Facility
R44	Clarify whether HLF excavations will be to competent bedrock or weathered bedrock. Provide justification and the criteria used to determine the suitability of the foundation for the HLF.	Section A.4.8.1.2 Appendix A.4C Feasibility Design of the Heap Leach Facility
R45	Details on foundation preparation including drainage management and accommodation of the proposed liner.	Section A.4.8.1.3 Appendix A.4C Feasibility Design of the Heap Leach Facility
R46	Rationale for the sufficiency of a 30 cm thick soil liner.	Section A.4.8.2.1
R47	A description of the composition and potential effects of the overliner on the performance of the liner considering permeability and hydraulic head.	Section A.4.8.2.2

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R48	Details on the mitigation and management of leaks from the HLF including during all stages of operations.	Section A.4.8.3.1 Appendix A.4C Feasibility Design of the Heap Leach Facility
R49	Details on the maintenance and repair of the LDRS sump and pumps.	Section A.4.8.3.2
R50	Details on the pipelines, pumps, and related infrastructure connecting the components of the HLF including SART, cyanide, and gold extraction facilities. Include details on pipeline alignments and leak detection measures.	Section A.4.8.4.1 Appendix A.4C Feasibility Design of the Heap Leach Facility
R51	Volumes and sources of water stored in the embankment and the events pond during a 1 in 100 year 24-hour storm event.	Section A.4.8.4.2
R52	Sensitivity analyses for makeup water requirements and water retention requirements for different moisture content values for stacked ore and wetter or dryer climatic conditions. Include a discussion on any implications in relation to HLF and events pond storage capacity.	Section A.4.8.4.3 Appendix A7.A Variability Water Balance Model Report Appendix A7.C Potential Effects of Climate Change on the Variability Water Balance
R53	A description of the HLF solution balance including in wet and dry conditions.	Section A.4.8.4.4 Appendix A7.A Variability Water Balance Model Report Appendix A7.C Potential Effects of Climate Change on the Variability Water Balance
R54	Rationale for the selection of design criteria for HLF events pond and events pond spillway sizing. Include a discussion on potential consequences resulting from larger hydrological events.	Section A.4.8.4.5
R55	Discussion on the potential for the buckling and decreasing efficiency of collection wells for leachate recovery.	Section A.4.8.5.1
R56	Estimates for the approximate tonnage in each ore lift within the HLF.	Section A.4.8.6.1
R57	Clarification on the leach cycle activities and durations.	Section A.4.8.6.2 Appendix A4.C Feasibility Design of the Heap Leach Facility

Request #	Request for Supplementary Information	Response
R58	Identify additional metallurgical test work that has been undertaken or is planned prior to/during construction and operation to improve leach cycle time estimates.	Section A.4.8.6.3 Appendix A.4E Results of Additional Lab Testing of Leach Ore
R59	<p>A discussion on the implications of the following scenarios and provide consideration of options that the mine could implement should the following unforeseen conditions occur during construction and operations:</p> <p>a. leach times that are significantly increased for short or extended times. As an example, if the leach cycle is unexpectedly increased from 60 days to 100 days for an extended time;</p> <p>b. shortages in stockpile capacity for excess oxide ore should the expected HLF stacking rate need to be reduced;</p> <p>c. possible extension of the HLF operation beyond Year 15 due to longer than anticipated leach cycles; and</p> <p>d. requirements for additional gold ore stockpile capacity and/or provisional spare leach pad later during operations since the surface area of the lifts will be reduced as the heap extends upslope.</p>	Section A.4.8.6.4 Appendix A.4F Waste Storage Area and Stockpiles Feasibility Design
R60	<p>Additional details regarding the HLF confining embankment giving consideration to the varying functions of the structure (i.e. HLF stability, leach solution storage, road traffic, and housing services). Details should include:</p> <p>a. construction methods and design of the section of the access road situated between the confining embankment toe and the events pond;</p> <p>b. measures incorporated into its design to protect any buried services and the confining embankment drainage blanket; and</p> <p>c. clarification regarding whether or not the confining embankment drainage blanket will extend under the road and daylight in the tailings management facility area.</p>	Section A.4.8.7.1
R61	A detailed schedule for the works required to construct the HLF and commence leaching operations. Consideration should be given to key QA/QC requirements and contingency planning for scheduling delays.	Section A.4.8.8.1
R62	Implications of scheduling delays or suspension of HLF construction.	Section A.4.8.8.2
R63	Details on the specialized personnel required to construct, operate, maintain, monitor and oversee the HLF.	Section A.4.8.8.3
R64	The missing Section 4.4.4 of the project proposal.	Section A.4.8.8.4
R65	Additional justification and rationale for the “high” hazard classification for the tailings management facility. In addition, provide details on construction and design implications of using an “extreme” hazard classification.	Section A.4.9.1.1
R66	If available, comparisons with other similar sand embankments or compacted sand dams, and/or natural analogs within similar environments. The discussion should include details on permeability, stress, strength, and performance of these structures.	Section A.4.9.1.2 Appendix A.4D Report on the Feasibility Design of the TMF

Request #	Request for Supplementary Information	Response
R67	Detailed rationale for the selection of the factor of safety during dam construction.	Section A.4.9.1.3
R68	Evidence demonstrating that the stability of the proposed TMF dam can be achieved through a post-closure period lasting thousands of years. Include a discussion on technically feasible options for managing the risk to downstream areas in perpetuity.	Section A.4.9.1.4
R69	An explanation on the likelihood and implications of saturation of the TMF dam's foundation, drains, and lower portions.	Section A.4.9.2.1
R70	Justification and rationale for using a factor of 1.5 for ground motion amplification for potential slip surfaces in the embankment foundation.	Section A.4.9.2.2
R71	Clarification if V_{s30} is site specific and how it was derived.	Section A.4.9.2.3
R72	Mean peak ground acceleration values derived from EZ-FRISK.	Section A.4.9.2.4
R73	Explanation of the difference between Natural Resources Canada spectral periods and the spectral periods presented in the report on the feasibility of the TMF.	Section A.4.9.2.5
R74	Explanation on monitoring and remediation activities that may be required during closure including the extent of remediation required in event of an MDE.	Section A.4.9.2.6
R75	Reassess and model the IDF and PMP using modern storm expansion techniques. In addition, provide: a. a full description of the methodology used; and b. rationale for using a 100-year design snowpack.	Section A.4.9.3.1 Appendix A.4D Report on the Feasibility Design of the TMF Appendix A.4G Updated Hydrometeorology Report
R76	Rationale for not constructing an emergency spillway for the TMF during operations.	Section A.4.9.4.1 Appendix A.4D Report on the Feasibility Design of the TMF
R77	A discussion on potential consequences of HLF failure resulting in displacement of water in the TMF.	Section A.4.9.4.2 Appendix A.4C Feasibility Design of the Heap Leach Facility
R78	A discussion and details of the methodology used to determine closure spillway requirements and relevant data such as time distribution of rainfall and relevant hydrographs.	Section A.4.9.4.3
R79	Discussion of the potential for closure spillway blockages and expected extent of maintenance and monitoring the spillway.	Section A.4.9.4.4
R80	Identify mitigations, with appropriate thresholds for implementation, and monitoring activities for closure spillway related erosion, both in the spillway channel and downstream water bodies.	Section A.4.9.4.5

Request #	Request for Supplementary Information	Response
R81	<p>A dam breach analysis with water/tailings inundation modeling consistent with the Canadian Dam Association's dam safety guidelines including:</p> <ul style="list-style-type: none"> a. probable maximum flood inundation map showing the maximum extent of flooding relating to a sudden full storage embankment breach extending to when expected flooding is within the natural water channels; b. an assessment of environmental and human impacts associated with a release of tailings; c. an assessment of potential impacts to First Nation Settlement Lands; d. an assessment of impacts to downstream infrastructure; e. mitigation measures in the event of a tailings breach; and f. for each proposed breach scenario a cross section of the critical TMF embankment, proposed loading factors, and each scenario's factor of safety. 	Section A.4.9.5.1
R82	Rationale for the proposed thickness of the core and downstream filter, considering the dam height and permanent performance requirements.	Section A.4.9.6.1 Appendix A.4D Report on the Feasibility Design of the TMF
R83	Rationale for the ceiling of 12 percent fines in cycloned sand to be used in embankment construction including a discussion of frost susceptibility and drainage characteristics.	Section A.4.9.7.1
R84	Provide testing or analyses to demonstrate that pore pressures, shear strength, angles of friction, and contraction of cyclone sand is acceptable at all pressures found in the TMF embankment.	Section A.4.9.7.2 Appendix A.4R Report on Laboratory Geotechnical Testing of Tailings Materials
R85	Clarification on the specific gravities of cyclone overflow and underflow.	Section A.4.9.7.3 Appendix A.4D Report on the Feasibility Design of the TMF
R86	Justify the upper range of 2.0 m for proposed lift heights of cyclone sand.	Section A.4.9.7.4
R87	Supporting evidence for the absence or presence of faults and fractures within the TMF and embankment areas including their activity.	Section A.4.9.8.1 Appendix A.4D Report on the Feasibility Design of the TMF

Request #	Request for Supplementary Information	Response
R88	Additional drill results, with detailed analysis and discussion, to provide an accurate characterization of the hydraulic conductivity and identification fault/shear zones within the embankment foundation.	Section A.4.9.9.1 Appendix A.4D Report on the Feasibility Design of the TMF Appendix A.4L Report on Revised Tailings Management Facility Seepage Assessment
R89	Details regarding the cut off trench and seepage control for the TMF embankment including: a. clarification on the depth of the cut-off trench and justification based on the depth of overburden and fractured bedrock; b. an updated cross section of the TMF embankment that includes the cut off trench and associated seepage barrier; c. a profile diagram of the cut off trench showing its depth across the dam core, along with available information on the depth of overburden and fractured bedrock; d. a discussion of measures to address fractured bedrock; and e. a discussion on the use of a grout curtain to control seepage	Section A.4.9.9.2 Appendix A.4D Report on the Feasibility Design of the TMF
R90	Further characterization of the dam foundation materials to confirm the presence and distribution of permafrost.	Section A.4.9.10.1
R91	Details regarding plans to ensure embankment foundations do not incorporate frozen and/or frost susceptible soils during construction.	Section A.4.9.10.2
R92	A detailed schedule for the works required to construct the TMF before and during operations. Consideration should be given to key QA/QC requirements and contingency planning for scheduling delays and freezing conditions.	Section A.4.9.11.1
R93	Implications of scheduling delays or suspension of dam construction during the nine month construction period.	Section A.4.9.11.2
R94	A review of relevant examples of sand embankment dams constructed in cold weather environments. This review should identify challenges, potential issues, and solutions surrounding sand placement and QA/QC.	Section A.4.9.11.3
R95	Methods of erosion control during dam construction.	Section A.4.9.11.4
R96	Description of ground surface conditions currently in relation to overburden and vegetation and any modification in preparation for the construction and filling of the TMF.	Section A.4.9.11.5 Appendix A.4D Report on the Feasibility Design of the TMF
R97	Discussion on any hydrological changes expected from changing ground thermal conditions and any monitoring to this effect.	Section A.4.9.11.6 Appendix A.4D Report on the Feasibility Design of the TMF
R98	Confirmation that natural or artificial liners are not included as part of the technical design of the TMF embankment.	Section A.4.9.11.7

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R99	Confirmation of the availability of non-frost susceptible materials for the construction of the dam core. Include a discussion that demonstrates that the material with a 20 percent or more fines is not a frost susceptible material.	Section A.4.9.12.1 Appendix A.4D Report on the Feasibility Design of the TMF
R100	Please provide the Mine Site Borrow Materials Assessment Report (VA101-325/16-3). If not part of the assessment report, include detailed information about: a. the locations of borrow sources; b. description of dimensions of borrow source excavations including area and depth of excavations; c. the estimated quantities of suitable borrow material available; d. the quantity of borrow material required for engineered mine components; e. proposed mitigation measures to minimize potential adverse effects associated with the development and use of the proposed borrow sites; and f. alternatives in the event that dam core material cannot be sourced at the site in sufficient quantities.	Section A.4.9.12.2 Appendix A.4Q Mine Site Borrow Materials Assessment Report
R101	A discussion on the thawing and containment of borrow and embankment excavations.	Section A.4.9.12.3
R102	Clarification on the use of filter-graded zones between the waste rock shells (if selected) of the starter dam and the overlying tailings shells (e.g. to prevent possible future deformation of the tailings shells).	Section A.4.9.13.1
R103	The missing information referenced in footnote No. 6 on p. 4-54 of the proposal related to Table 4.3-7 (Inflow Design Flood and Earthquake Design Ground Motion).	Section A.4.9.14.1
R104	For the LNG storage facilities, regasification facilities, and mobile fueling stations, provide: a. a detailed description for all facilities related to LNG including location, design, construction, operation and closure; b. measures for the safety of Project personnel including separation distances from office and living areas; c. design measures and operating procedures to prevent a cascading accident; and d. a list of standards and codes that will apply to design and operation of the each component identified above.	Section A.4.10.1.1 Appendix A.22G LNG Management Plan
R105	Identification of potential hazards to LNG facilities at the Casino Mine site associated with seismic activity, extreme weather events, wildfire, unstable terrain, and degradation of discontinuous permafrost, and a quantitative assessment of the related risk to those facilities.	Section A.4.10.1.2 Appendix A.22G LNG Management Plan

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R106	<p>Identification of the potential supplier of LNG from British Columbia and the established supplier of LNG from Alaska. Indicate the nature of any supply agreements that are in place. Indicate the nature of any uncertainties about the LNG facility in British Columbia being operational by the time LNG is required at the Casino Mine site. Provide documentation to confirm that the facility in Alaska will be able to supply LNG in sufficient quantity to meet the needs of the Casino Mine, should LNG not be available from the proposed facility in British Columbia. Describe the Casino Mining Corporation's fallback plan in the event that LNG is unavailable from either identified source, or is not available in sufficient quantity. Indicate whether an alternative source of electrical power might be required in such a case. Assess the effect of the above scenarios on the project's economic feasibility.</p>	Section A.4.10.1.3
R107	The earthquake design basis for the LNG storage tank at the mine site.	Section A.4.10.1.4 Appendix A.22G LNG Management Plan
R108	A description of diesel storage facilities along with anticipated rates of use and storage volumes for each stage of the Project.	Section A.4.10.2.1
R109	<p>A table or tables that summarize the following information for each major mine component:</p> <ul style="list-style-type: none"> a. where appropriate, dimensions, mass, volume, centroid and elevation; b. reclamation characteristics (slope aspects, cover type and depth, volume required, re-vegetation type); c. source controls (e.g. liners, compacted graded drained foundations, and covers over reclaimed features) and any features associated with fluid management and stabilization and/or water management and treatment; and d. geotechnical protocols and results (e.g. FOS). 	<p>Section A.4.11.1.1 Appendix A.4C Feasibility Design of the Heap Leach Facility Appendix A.4D Report on the Feasibility Design of the Tailings Management Facility Appendix A.4F Waste Storage Area and Stockpiles Feasibility Design</p>
R110	Conservative considerations for the long-term operational and maintenance requirements for the site.	Section A.4.11.1.2
R111	<p>Analysis of closure options including long-term and short-term costs, care and maintenance requirements, and long-term environmental risks. The options analysis should include:</p> <ul style="list-style-type: none"> a. open pit; b. tailings management facility; c. heap leach facility; d. stockpile areas; and e. water management and treatment. 	Section A.4.11.2.1 Appendix A.4H Cold Climate Passive Treatment Systems Literature Review
R112	Discuss and if necessary update the conceptual closure plan to take into account the most recent Government of Yukon Reclamation and Closure Planning for Quartz Mining Projects, Plan Requirements and Closure Costing Guidance (Government of Yukon, 2013).	Section A.4.11.2.2

Request #	Request for Supplementary Information	Response
R113	Clarify what is meant by regular or infrequent site presence or what degree of on-site presence is envisioned (e.g. yearly during summer, once every 10 years, or site presence in step with closure stage).	Section A.4.11.2.3
R114	Justification and clarification of the proposed five year post-closure monitoring period given that actual closure conditions will not be established for about 95 years (pit discharge) and other closure conditions are not fully known or presented here (e.g. time for contaminated groundwater sources to report to TMF/seepage).	Section A.4.11.2.4
R115	Examples of successful similar treatment systems with similar contaminant loads, flows and climate.	Section A.4.11.3.1 Appendix A.4H Cold Climate Passive Treatment Systems Literature Review
R116	Initiation of laboratory studies to confirm the effectiveness of the wetlands as a water treatment system for the purpose of closure and to inform future field studies. The Executive Committee expects that results from these studies will be provided throughout the assessment process.	Section A.4.11.3.2 Appendix A.4K Metal Uptake in Northern Constructed Wetland
R117	Detailed plans on field studies to support and refine the effectiveness of the wetland water treatment system. Details should include: a. a preliminary schedule for studies; b. location and sequencing of field scale studies; and c. any required activities, such as earthworks, required for field studies.	Section A.4.11.3.3
R118	Details on any proposed pilot studies for the bioreactor system associated with the HLF.	Section A.4.11.3.4
R119	An assessment of uncertainty associated with the performance of the proposed passive treatment system.	Section A.4.11.3.5
R120	Prediction of a worst case scenario of downstream water quality assuming no treatment system. Predictions should extend as far downstream as necessary to demonstrate no further exceedances of the CCME surface water quality objectives attributed to the mine (or 90th percentile of background for those constituents that naturally exceed CCME).	Section A.4.11.3.6
R121	A discussion of contingency, alternative, or additional treatment options that could achieve water quality objectives should the passive treatment system not be viable or perform as required.	Section A.4.11.3.7
R122	A discussion of the requirements and merits for conventional treatment as the treatment method.	Section A.4.11.3.8 Appendix A.4H Cold Climate Passive Treatment Systems Literature Review

Request #	Request for Supplementary Information	Response
R123	A discussion and rationale on how the design of the north end of the tailings management facility wetlands will accommodate a range of possible flows from the pit lake.	Section A.4.11.3.9 Appendix A.7B Water Quality Predictions Report
R124	Details and design considerations for the remotely operated solar powered decant valves. Details should include: a. infrastructure requirements; b. monitoring and maintenance requirements, including an estimated timeframe; c. contingency planning related to malfunctions, inappropriate feedback and interaction; and d. case studies where such systems are effectively used;	Section A.4.11.3.10
R125	Details and rationale on the proposed storage and disposal of low-grade ore. Details should include: a. detailed geochemical characterization of material in the low-grade ore stockpile; and b. supporting evidence and rationale as to why leaving this material on surface to continue to generate acid and metal contaminants before much later disposal in the pit is any more beneficial than disposing same under water in the TMF when this material is first encountered.	Section A.4.11.4.1
R126	Details and discussion on groundwater collection and/or infiltration suppression to manage seepage through the low grade ore stockpile.	Section A.4.11.4.2
R127	A detailed discussion on lake stratification or mixing in relation to discharge including: a. any evidence or assumptions for lake mixing or stratification; and b. stratifications or mixing impacts to discharge water quality and the tailings management facility wetlands.	Section A.4.11.4.3 Appendix A.7B Water Quality Predictions Report
R128	Additional analysis to inform and update the Conceptual Closure and Reclamation Plan to address potential pit wall instability in post-closure.	Section A.4.11.5.1 Appendix A.4I Open Pit Geotechnical Design
R129	A sensitivity analysis examining the effect of less stable pit walls and show how the additional waste rock would be managed if the wall slopes had to be relaxed.	Section A.4.11.5.2
R130	A description of the barrier to prevent access to pit walls.	Section A.4.11.6.1
R131	Results and analysis of testing of heap leach facility detoxification using samples and conditions similar to an exhausted heap of friable ore approximately 150 m high.	Section A.4.11.7.1
R132	A discussion on alternative mitigation measures that may be required if heap leach facility rinsing and detoxification is not successful. The discussion should include examples of successful heap rinsing at comparable sites where materials of a similar nature, mass and northern location have been encountered.	Section A.4.11.7.2 Appendix A.4J Laboratory Evaluation of the SO ₂ /Air and Peroxide Process
R133	Describe how fluid impoundment behind the HLF embankment will be prevented at closure.	Section A.4.11.7.3

Request #	Request for Supplementary Information	Response
R134	<p>Additional details on the design basis and requirements for cover materials. Details should include:</p> <ul style="list-style-type: none"> a. cover modeling and assessment including validation of assumed infiltration rates; b. availability and location of sufficient construction materials to meet the design requirements; c. composition of materials to be used for the cover system including mineral soil, topsoil, and vegetation; d. range of expected performance of proposed cover systems; and e. long-term monitoring and maintenance requirements. 	Section A.4.11.8.1
R135	<p>Feasibility level design details for the winter seepage mitigation pond cut-off wall and cut-off trench/barrier. Include a discussion of how the structures are to be constructed.</p>	Section A.4.11.9.1
R136	<p>Rationale for the construction of a cut-off barrier only after operations.</p>	<p>Section A.4.11.9.2 Appendix A.7B Water Quality Predictions Report</p>
R137	<p>Additional details about the winter seepage mitigation pond dam should include:</p> <ul style="list-style-type: none"> a. proposed design standards (e.g. Canadian Dam Association Safety Guidelines); b. cross-sections; c. construction materials; d. consequence of failure classification; e. detailed foundation characterization; and f. monitoring and maintenance requirements. 	Section A.4.11.9.3
R138	<p>Demonstrate that the rate of discharge from the proposed winter seepage mitigation pond can be controlled in response to downstream flow rates within Casino Creek in order to meet downstream water quality objectives. Details should include WSMP capacity to handle excess water that is not discharged due to low flow conditions in Casino Creek.</p>	<p>Section A.4.11.9.4 Appendix A.7A Variability Water Balance Report</p>
R139	<p>Detailed plans for establishing vegetation on the downstream slope of the tailings management facility west and main embankments. Details should include:</p> <ul style="list-style-type: none"> a. examples of successful projects where vegetation was established on similar slopes under similar climatic conditions as supporting rationale for the proposed closure and reclamation plan; b. a conceptual schedule for the site vegetation studies and feasibility level site vegetation designs, including the maintenance expectations; and c. a description of the estimated feasibility level costs of site vegetation upon mine closure account for the site-specific conditions. 	Section A.4.11.10.1
R140	<p>Further discussion regarding site infrastructure that may not be conducive to climax vegetation in closure. Include measures that you will implement to ensure long-term integrity of this reclaimed infrastructure.</p>	Section A.4.11.11.1

Request #	Request for Supplementary Information	Response
R141	<p>Additional details in the Conceptual Closure and Reclamation Plan with regard to temporary or early closure. Details should include:</p> <ul style="list-style-type: none"> a. water and solution management and any requirements for water treatment; b. infrastructure requirements (e.g. ability of heap leach facility or tailings management facility to accommodate temporary or early closure); c. identify critical points in the project life cycle where temporary or early closure is most probable and most challenging; and d. length of time project could remain in temporary closure before discharge would be required. 	Section A.4.11.12.1
R142	Contingency measures or alternatives that may be required in the event of early closure if passive treatment system field trials have not been completed or are shown to be unsuccessful.	Section A.4.11.12.2
R143	Update the CCRP and security estimates based on the Government of Yukon's updated guidance document: Reclamation and Closure Planning for Quartz Mining Projects, Plan Requirements and Closure Costing Guidance (Government of Yukon, 2013).	Section A.4.11.13.1
R144	<p>Additional justification and discussion on security estimates. Details should include:</p> <ul style="list-style-type: none"> a. all major mine components; b. all reclamation and closure stages; c. consideration of temporary or early closure; d. consideration of accidents and malfunctions; and e. consideration of effects of the environment. 	Section A.4.11.13.2
R145	<p>The following documents referenced in the Conceptual Closure and Reclamation Plan (Appendix 4A):</p> <ul style="list-style-type: none"> a. R&C Environmental Services, 2010 b. pers.comm. J. Marsden, 2013 	Section A.4.11.14.1 Appendix A.4J Laboratory Evaluation of the SO ₂ /Air and Peroxide Process
R146	<p>A detailed description of waste management for the Project including:</p> <ul style="list-style-type: none"> a. location and size of all facilities associated with waste management; b. detailed description of waste storage facilities including the waste management facility, landfill, incinerator, land treatment facility, and sewage treatment plant; c. detailed description of waste management at the various facilities; d. anticipated volumes of waste at various stages of the Project; e. details on special waste and hazardous waste handling including anticipated volumes; and f. a more detailed waste management plan. 	Section A.4.12.1 Appendix A.22A Solid Waste and Hazardous Materials Management Plan
R147	A detailed discussion on the short and long-term stability of mine infrastructure and surrounding slopes in the upper Casino Creek watershed due to permafrost degradation. Consideration should be given to the effects of permafrost degradation related to site infrastructure and climate change.	Section A.6.2.1.1

Request #	Request for Supplementary Information	Response
R148	Maps and relevant references showing permafrost distribution within the mine site as well as the Freegold Road, the airstrip and the airstrip access road.	Section A.6.2.1.2
R149	A detailed thermal modeling analysis of the proposed TMF and associated infrastructure on foundation conditions to support engineering design (including determination of embankment height, width of right of way, safety margin, etc.) and to assess the effects of the Project on the ground thermal regime. Include a detailed discussion and analysis about potential impacts to mine infrastructure from altered foundation conditions.	Section A.6.3.1.1
R150	An analysis of how climate change has been incorporated into the thermal erosion analysis to support Project design and the impact assessment.	Section A.6.3.1.2
R151	The depths at which ground temperatures have been measured for each cable installed in 1994.	Section A.6.4.1.1
R152	The ground temperature readings for all thermistor cables (from 1994 to 2013) in the same format (graphs of ground temperature with depth at a given time) which will allow an assessment of the impacts of recent climate warming (from 1994 until now) on permafrost.	Section A.6.4.1.2
R153	A discussion of whether ground temperature monitoring is planned for the proposed alignment of the Freegold Road Extension.	Section A.6.4.1.3
R154	Please clarify the assumption that permafrost might have low ice content based on the comparison between depth of permafrost and depth to groundwater.	Section A.6.4.1.4
R155	Clarification of the legends used in the baseline terrain maps as well as a simpler interpretation (label) of the units, especially those with multiple capital letters and integers. This will help establish the baseline surficial geology (terrain).	Section A.6.4.1.4
R156	Develop and present a site-specific terrain hazard classification scheme for the mine site, the Freegold Road, and the airstrip and airstrip access road, consistent with the YESAB draft guidance document titled Geohazards and Risk: A Proponents Guide to Linear Infrastructure (YESAB, 2014).	Section A.6.6.1.1
R157	Clarification of whether an ice-rich permafrost distribution map has been considered in the terrain hazard classification scheme	Section A.6.6.1.2
R158	An assessment of potential water quality under a broader range of hydrologic conditions, including: a. the ability to manage waters during wet, dry and average years; b. the receiving water effects during typical and extreme summer and winter low flows (7Q20 and 7Q10); and c. the water storage and receiving water effects during freshet and event flow.	Section A.7.2.1.1 Appendix A.7A Appendix A.7B
R159	An assessment of the potential effects of climate change on source loadings and receiving water effects.	Section A.7.2.1.2 Appendix A.7A Appendix A.7C

Request #	Request for Supplementary Information	Response
R160	An assessment of potential water quality under a broader range of operating/closure scenarios, including permit limits, atypical operations, accident scenarios, with and without passive treatment.	Section A.7.2.1.3 Appendix A.7B
R161	Additional baseline water quality data for key water sampling locations on a minimum monthly basis for a minimum period of one year to estimate seasonal variability. The Executive Committee expects that results from ongoing water quality data collection will be provided throughout the assessment process.	Section A.7.3.1.1 Appendix A.7D Updated Appendix B5 to Appendix 7A
R162	An analysis regarding dataset robustness, which should at a minimum include additional analysis of central tendency (i.e. standard deviation) and could include better description of data distribution, data variance and other summary statistics where data is not normally distributed to aid in understanding the robustness of the present water quality dataset.	Section A.7.3.1.2 Appendix A.7D Updated Appendix B5 to Appendix 7A
R163	Additional details on water sampling protocols and field sampling methodologies. Details should include: a. filtration protocol/methodology (e.g. field filtered, filtered in lab); b. sample handling and preservatives protocol; and c. analytical hold times, chain of custody, etc.	Section A.7.3.1.3
R164	Clarify whether water quality parameters being monitored and conclusions are being drawn from total metals content, dissolved metals content, or both. Discuss whether elevated metals were a result of additional metals associated with higher suspended sediments.	Section A.7.3.1.4 Appendix A.7D Updated Appendix B5 to Appendix 7A Appendix A.7F The Effect of Acid Rock Drainage on Casino Creek
R165	Further discussion and clarification on baseline data from the existing adit. Details should include: a. rationale as to the limited amount of data from the adit; and b. an analysis for loadings (mass-balance) at additional points along the pathway from the adit to site W4.	Section A.7.3.1.5
R166	Toxicity testing and evaluation on water quality samples using early-life stages of salmonid and non-salmonid fish species, invertebrate species, and aquatic plant species.	Section A.7.3.1.6 Appendix A.7G Toxicity Testing Reports
R167	Clarify and provide further justification for the use of water monitoring stations W18, M18, and H18.	Section A.7.3.1.7 Appendix A.7B Water Quality Predictions Report
R168	Toxicity and bioaccumulation testing and evaluation on sediment quality samples.	Section A.7.3.2.1 Appendix A.7G Toxicity Testing Reports

Request #	Request for Supplementary Information	Response
R169	Baseline hydrological information for streams and rivers downstream of W16 on Dip Creek and the Yukon River (e.g. Klotassin River and White River), inclusive of the Yukon River at the respective point of confluence.	Section A.7.4.1.1
R170	Provide estimates of flow rates for the Yukon River either at the point of confluence with Britannia Creek or at the point of planned water withdrawal from the Yukon River;	Section A.7.4.1.2
R171	Confirm whether on-going hydrometric monitoring will continue to improve the reliability of described baseline flow characteristics.	Section A.7.4.1.3
R172	Survey cross-sections of the stream gauging stations as well as an assessment of the accuracy of the measured peak flows considering the rating curve data.	Section A.7.4.1.4
R173	Confirm whether hydrometric monitoring station W1 that was discontinued in 2011 will be re-established. If not, provide rationale as to chosen approach.	Section A.7.4.1.5
R174	Discuss the use of stage-discharge measurements prior to 2011 (measurements which did not include benchmarks) in developing rating curves. Discuss the implications of only using data from 2013 and onwards in developing rating curves.	Section A.7.4.1.6
R175	A detailed description of the methodology used to select the Big Creek drainage as a regional surrogate watershed to develop the synthetic flow series. Consideration should be given to developing a focussed regional relationship using the larger and more current data set.	A.7Section A.7.4.1.7
R176	Update tables 5.1-2, 5.2-1, and 5.3-1 in Appendix 7B, Hydrology Baseline Report to include discharge estimates (e.g. cubic meters per second or liters per second).	Section A.7.4.1.8
R177	A discussion on, and if necessary reassess, the values identified in Tables 5.2-1 and 5.3-1 of Appendix 7B (Hydrology Baseline Report) given that a comparison with regional hydrometric data suggests that values presented are higher than regional values.	Section A.7.4.1.9
R178	The following referenced report: Knight Piésold Ltd. 2010 Hydrometeorology Report (Ref. No. VA101-325/3-1, June 2010)	Section A.7.4.1.10 Appendix A.4G Updated Hydrometeorology Report
R179	An update and overview of current hydrogeology baseline information. Details should be provided for the following: a. whether additional conductivity studies are being done in the TMF Main Embankment area and rationale for the selected approach; b. characterization of hydrogeology in the open pit area outside the immediate footprint; and c. characterization of hydrogeology in the gold ore, supergene oxide/low grade ore, and low grade ore stockpile areas.	Section A.7.5.1.1 Appendix A.7M 2013-2014 Groundwater Data Report
R180	Additional discussion and supporting rationale on groundwater seepage from the open pit area to the Canadian Creek drainage. The discussion should include implications to base flows during operations and water quality during closure and post-closure.	Section A.7.5.1.2

Request #	Request for Supplementary Information	Response
R181	The following document for review: Knight Piésold Ltd. Revised Tailings Management Facility Seepage Assessment (Ref. No. VA101-325/8-13, December, 2012).	A.7Section A.7.5.1.3 Appendix A.4L Revised Tailings Management Facility Seepage Assessment
R182	Additional detail and rationale to indicate that samples collected for geochemical characterization of ore, waste rock, and tailings, provide a statistically representative dataset. Details should include: a. results of sensitivity analysis and gap analysis of geochemical characterization program; b. summation of geochemical sampling program relative to rock lithology and alteration types; and c. if current sampling is found to be incomplete, please update accordingly with a suitable number of samples for ABA, as well as appropriate kinetic testing.	Section A.7.6.1.1 Appendix A.7H Appendix A2 to Casino Waste Rock and Ore Geochemical Static Test Assessment Report: Cross-Sections
R183	Complete cross-section and long-sectional diagrams of the open pit. Diagrams should include: a. all sample locations; b. all geologic units and lithologies; c. ore body outline; and d. any other data that will increase understanding of the deposit geology.	Section A.7.6.1.2 Appendix A.7H Appendix A2 to Casino Waste Rock and Ore Geochemical Static Test Assessment Report: Cross-Sections
R184	The following referenced reports: a. Lorax Environmental Service Ltd. (2009) Casino Phase I Geochemical Assessment Report prepared for Western Copper Corporation, January, 2009. b. Lorax Environmental Services Ltd. (2010) Casino Phase II Geochemical Assessment Report, prepared for Western Copper Corporation, January 2010.	Section A.7.6.1.3
R185	Describe or otherwise comment upon the added dimension of lithology in their analysis.	Section A.7.6.1.4
R186	Information on and description of the "FZ" lithology listed in Table 3-2 report titled Casino Waste Rock and Ore Geochemical Static Test Assessment (Appendix 7D, Lorax, Dec 3, 2013).	Section A.7.6.1.5
R187	Clarify why there are only about 12 percent of HYP samples included in the shake flask extraction testwork when the HYP type makes up almost 37 percent of the alteration types.	Section A.7.6.1.6 Appendix A.7I Casino Kinetic Testwork 2014 Update for Ore, Waste Rock and Tailings
R188	Rational as to why there are no values presented for uranium and fluoride despite having identified them as parameters of interest.	Section A.7.6.1.7

Request #	Request for Supplementary Information	Response
R189	<p>Details on: mining sequence; production of ore and waste types relative to lithology and alteration; and blending schedule. Details should include:</p> <ul style="list-style-type: none"> a. an ore/waste production schedule (tables and figures) broken down by lithologic/alteration units and tonnages mined; and b. demonstration that the mixing CAP and SUP material with HYP material could be implemented and will be an effective mitigation. 	<p>Section A.7.6.1.8 Appendix A.4F Waste Storage Area and Stockpiles Feasibility Design Appendix A.22H ML/ARD Management Plan</p>
R190	<p>Update and provide a discussion of on-going kinetic testwork. Provide any results and demonstrate how those results may inform the Project. Details should include:</p> <ul style="list-style-type: none"> a. discussion on whether any of the tests recommended by Knight Piésold have been conducted or initiated; b. any additional laboratory reports that are available; and c. discussion on what experiments/test work will be conducted prior to starting construction of the heap. 	<p>Section A.7.6.1.9 Appendix A.7I Casino Kinetic Testwork 2014 Update for Ore, Waste Rock and Tailings</p>
R191	<p>Details demonstrating the ore beneficiation process proposed to produce suitable concentrate. Details should include the process steps, reagents to be used, and resulting concentrates and wastes generated.</p>	<p>Section A.7.6.1.10 Appendix A.4M Processing Flow Sheets Appendix A.22H ML/ARD Management Plan</p>

Request #	Request for Supplementary Information	Response
R192	<p>For the Freegold Road upgrade and extension, access road borrow sources, airstrip, airstrip access road, and mine site borrow sources, provide additional details and information on:</p> <p>a. all geological materials, including estimates of volumes, that will be excavated, exposed or otherwise disturbed;</p> <p>b. geochemical characterization, analysis, and interpretation on representative samples for those geological materials;</p> <p>c. consideration of potential effects and appropriate mitigation measures associated with excavating, exposing, or disturbing those materials.</p>	<p>Section A.7.6.1.11 Appendix A.22H ML/ARD Management Plan Appendix A.7J Preliminary Risk Assessment Metal Leaching and Acid Rock Drainage Appendix A.7K Casino Mine Site Borrow Sites ML/ARD Potential Appendix A.12A Wildlife Mitigation and Monitoring Plan V.1.2 Appendix A.22A Waste and Hazardous Materials Management Plan Appendix A.22C Sediment and Erosion Control Management Plan Appendix A.22D Invasive Species Management Plan</p>
R193	<p>The following referenced report: Lorax Environmental Services Ltd. (2012) Casino Road: Preliminary Risk Assessment Metal Leaching and Acid Rock Drainage.</p>	<p>Section A.7.6.1.12 Appendix A.7J Preliminary Risk Assessment Metal Leaching and Acid Rock Drainage</p>
R194	<p>Details and justification on the depth of reaction and loadings source of 2.0 m for the face of the embankment when the active oxidation zone will initially be over a much deeper zone and will evolve downward over time. Justify the loading rates in the source term as a function of the oxidation zone only.</p>	<p>Section A.7.6.2.1</p>
R195	<p>Clarify the loadings as either runoff on the embankment slope and/or the downward infiltration that will eventually daylight as seepage from the embankment.</p>	<p>Section A.7.6.2.2 Appendix A.7B Water Quality Predictions Report</p>

Request #	Request for Supplementary Information	Response
R196	Justify the depth of oxidation on the tailings beach and show the effect and implications of oxidation on the loadings associated with the infiltrating porewater and tailings seepage.	Section A.7.6.2.3 Appendix A.7B Water Quality Predictions Report
R197	The text on page 4-66 refers to Figure 4.1.4 yet this could not be found, or appears to be mislabelled. Please provide this figure for review.	Section A.7.6.3.1
R198	Casino Cross Sections (Appendix A2 – in LORAX (2013) Casino Geochemical Static Test Assessment, 3-Dec-13, J862-5).	Section A.7.6.3.2 Appendix A.7H Appendix A2 to Casino Waste Rock and Ore Geochemical Static Test Assessment Report: Cross-Sections
R199	Supplemental Unsaturated Kinetic Test Results (Appendix B – LORAX (2013) Casino Geochemical Source Term Development, 4 December, J862-5).	Section A.7.6.3.3 Appendix A.7L Casino Geochemical Source Term Development: Appendix B
R200	The following referenced report: Himmelright, J. R., 1994: The effect of natural acid rock drainage on Casino Creek. Prepared for Pacific Sentinel Gold Corp. August 1994.	Section A.7.6.3.4 Appendix A.7F The Effect of Acid Rock Drainage on Casino Creek
R201	Re-run the numerical groundwater model with updated groundwater baseline data.	Section A.7.7.1.1
R202	A copy of the updated Modflow numerical groundwater model and all input data used in the modeling runs including: a. a copy of all model outputs as summary tables and figures; and b. further discussion of assumptions used in the modeling.	Section A.7.7.1.2
R203	Discuss whether the open pit lake seepage predicted by the numerical model, to Casino Creek after closure, is assessed in the overall loadings to the TMF and the downstream environment. If not, provide rationale for its exclusion.	Section A.7.7.1.3 Appendix A.7B Water Quality Predictions Report
R204	If the majority of the predicted seepage, from the open pit lake, of 12 L/s will report to the upper groundwater system in Casino Creek: a. identify what the predicted magnitude of the remaining seepage will be; and b. identify where the remaining seepage is predicted to report to and what the effect of that seepage will be.	Section A.7.7.1.4

Request #	Request for Supplementary Information	Response
R205	Discuss whether the potential for preferential flow through faults below the TMF were considered and if not, discuss why and if so, discuss what were the results and implications for water quality downstream of the TMF.	Section A.7.7.1.5 Appendix A.4D Report on the Feasibility Design of the Tailings Management Facility Appendix A.4L Revised Tailings Management Facility Seepage Assessment
R206	Clarify whether hydraulic conductivity values of the tailings and embankment materials are estimates or laboratory measured values. If they are estimates, please indicate if, and when laboratory testing will be conducted.	Section A.7.7.1.6 Appendix A.4L Revised Tailings Management Facility Seepage Assessment
R207	Update the numerical groundwater model to specifically include the seepage recovery pond and calculate the seepage recovery pond's efficiency including the flux of untreated water that will bypass the pond.	Section A.7.7.1.7
R208	Justification for using a series of steady state models rather than one transient model to predict groundwater flows.	Section A.7.7.1.8
R209	A description of how the numerical groundwater model is to be used and updated during the mining process in order to improve mine management and predictions for closure. Indicate when any updates would be released during operations.	Section A.7.7.1.9
R210	Groundwater level data between the proposed TMF and the Dip Creek watershed. The area of greatest concern is along the watershed divide just beyond the eastern end of the main embankment.	Section A.7.7.1.10 Appendix A.7M 2013-2014 Groundwater Data Report Appendix A.7N Extension of Numerical Groundwater Modelling to include Dip Creek Watershed
R211	A NW-SE geological cross-section (same approximate orientation as the main embankment) from the TMF to Dip Creek since this could demonstrate potential groundwater flow pathways across the topographic divide.	Section A.7.7.1.11
R212	Numerical groundwater flow modeling that extends into the Dip Creek watershed and eliminates the assumption of a no-flow boundary. Modeling should consider the potential for subpermafrost groundwater flow across the topographic divide. Modeling the seepage from the TMF should consider three dimensional flow from the TMF in order to consider not only vertical flow through or beneath the dam but also horizontal flow around the dam and potentially into Dip Creek tributaries.	Section A.7.7.1.12

Request #	Request for Supplementary Information	Response
R213	Map of the elevation of the base of permafrost and data on deep permafrost conditions east of the proposed tailings management facility.	Section A.7.7.1.13 Appendix A.7N Extension of Numerical Groundwater Modelling to include Dip Creek Watershed
R214	Justification for not including the subsurface distribution of permafrost (in particular lower hydraulic conductivity of frozen ground as a barrier to groundwater flow) in the numerical groundwater flow modeling.	Section A.7.7.1.14
R215	A discussion of the effect of permafrost distribution on the observed and modelled patterns of groundwater flow.	Section A.7.7.1.15
R216	Discussion of hydraulic conductivities of frozen and unfrozen hydrostratigraphic units. Details should include: a. estimates of frozen and unfrozen hydraulic conductivities of all rock materials subject to permafrost; and b. how thermal changes (due to facility construction and climate change) will affect the groundwater regime.	Section A.7.7.1.16
R217	A discussion and consideration of a numerical permafrost model to assess the effects of the mine components on permafrost distribution in the mine footprint.	Section A.7.7.1.17
R218	A discussion on the discrepancies between the Inferred Spatial Distribution of Permafrost (Figure 2.3 of Appendix 7C) and the Groundwater Recharge Zones (Figure 3.4 of Appendix 7E).	Section A.7.7.1.18
R219	A discussion of how recharge distributions were modified and their potential effects on the numerical groundwater flow model.	Section A.7.7.1.19
R220	A new figure combining both the recharge and permafrost distributions so that it is possible to identify where the distributions overlap and differ.	Section A.7.7.1.20
R221	Complete groundwater modeling on the period of time that the TMF is dewatered to allow construction of the TMF wetlands.	Section A.7.7.1.21
R222	Modeling for seepage flow rates from the water management pond if the water level exceeds desired levels.	Section A.7.7.1.22
R223	Verification methods for seepage flow not captured by the water management pond.	Section A.7.7.1.23
R224	An assessment of potential water quantity under a broader range of hydrologic conditions, including: a. the ability to manage waters during wet, dry and average years; b. the receiving water effects during typical and extreme summer and winter low flows (7Q20 and 7Q10); and c. the water storage and receiving water effects during freshet and event flow.	Section A.7.8.1.1 Appendix A.7A Variability Water Balance Model Report

Request #	Request for Supplementary Information	Response
R225	An assessment of the potential effects of climate change on water balance.	Section A.7.8.1.2 Appendix A.7A Variability Water Balance Model Report Appendix A.7C Potential Effects of Climate Change on the Variability Water Balance
R226	An assessment of potential water quantity under a broader range of operating/closure scenarios, including permit limits, atypical operations, and accident scenarios.	Section A.7.8.1.3 Appendix A.7A Variability Water Balance Model Report
R227	Provide sensitivity analysis for the site water balance model identifying: a.the potential impact of variation in assumed values for key water balance model parameters; and b. the potential impact of temporal change in the assumed distribution of precipitation and snowmelt.	Section A.7.8.1.4 Appendix A.7A Variability Water Balance Model Report Appendix A.7B Water Quality Predictions Report
R228	Identify if the results of the sensitivity analysis materially affect the Water Management Plan for the project proposal, and if yes, update the Water Management Plan.	Section A.7.8.1.5 Appendix A.7A Variability Water Balance Model Report
R229	A description of how the water balance model is to be used and updated during the mining process in order to improve mine management and predictions for closure. Indicate when any updates would be released during operations.	Section A.7.8.1.6 Appendix A.7A Variability Water Balance Model Report Appendix A.7C Potential Effects of Climate Change on the Variability Water Balance
R230	Provide the reasoning for selecting Big Creek as the most representative long-term hydrometric station for generating site synthetic stream flow data.	Section A.7.8.1.7
R231	Re-run the water quality model with updated water quality baseline data.	Section A.7.9.1.1
R232	A copy of the GoldSim model and all input data used in the assessment.	Section A.7.9.1.2 Appendix A.7B Water Quality Predictions Report

Request #	Request for Supplementary Information	Response
R233	A copy of all model outputs as summary tables and figures.	Section A.7.9.1.3 Appendix A.7B Water Quality Predictions Report
R234	A discussion of assumptions used in the modeling.	Section A.7.9.1.4 Appendix A.7B Water Quality Predictions Report
R235	Any additional information that the Proponent may have used in their assessment so as to facilitate an independent calculation of potential water quality effects by reviewers.	Section A.7.9.1.5 Appendix A.7A Variability Water Balance Model Report
R236	A description of how the water quality model is to be used and updated during the mining process in order to improve mine management and predictions for closure. Indicate when any updates would be released during operations.	Section A.7.9.1.6
R237	An explanation of how loadings from embankment runoff and embankment seepage relate to the conceptual flow diagram in Figure 7-2 in LORAX (2013) Casino Geochemical Source Term Development, 4 December, J862-5. In addition, please confirm that those loadings were included in the water quality model.	Section A.7.9.2.1 Appendix A.7B Water Quality Predictions Report
R238	Additional details and rationale supporting the use of site specific water quality objectives (SSWQO) for certain contaminants of concern. Details should include: a. justification for not using CCME guidelines to develop SSWQO; b. demonstration that aquatic biota remain protected to the same degree as provided by the CCME guidelines; c. how SSWQO account for chronic/long-term acceptable limits; and d. consideration for the new, hardness-dependent, long-term limit for cadmium now available from CCME.	Appendix A.7A Variability Water Balance Model Report Appendix A.7B Water Quality Predictions Report Appendix A.7E 2008 Environmental Studies Report: Final
R239	Predictions for pH in table 7.4-3 (Water Quality Model Parameters and CCME and BC MOE Guidelines) and Tables 7.4-8 through 7.4-10 (Summary of Predicted Water Quality in Casino Creek at M18 and W4 and Dip Creek at W5).	Section A.7.10.1.2 Appendix A.7B Water Quality Predictions Report
R240	Predictions for toxicity, pH, and radium 226 in the tailings management facility pond and the winter seepage mitigation pond. Provide a discussion on how these parameters address the limits under the Metal Mining Effluent Regulations.	Section A.7.10.2.1 Appendix A.7B Water Quality Predictions Report

Request #	Request for Supplementary Information	Response
R241	An assessment of potential water quality effects extending downstream to include water monitoring station W16 and, if necessary, as far downstream to demonstrate no further exceedances of the CCME surface water quality objectives attributed to the mine (or 90th percentile of background for those constituents that naturally exceed CCME). The assessment should consider scenarios both with and without use of the passive treatment system.	Section A.7.11.1.1
R242	Additional rationale supporting the use of station M18/W18 as the receiving environment for the Project. Consideration should be given to: a. how this site fits within the intent of CCME; and b. to what degree does contribution of water from Brynson Creek provide a buffer for the project meeting CCME or site specific water quality objectives for the protection of aquatic resources.	Section A.7.11.1.2
R243	Expected length of time PAG materials will be exposed to oxygen and water before submersion in the TMF and any expected resulting acid generation.	Section A.7.12.1.1 Appendix A.7I Casino Kinetic Testwork 2014 Update for Ore, Waste Rock and Tailings
R244	An analysis of scenarios that may cause exposure of PAG materials considering variation of meteorological factors, vegetative interception, and seepage losses. Details should include: a. an analysis of successive dry years on TMF water balance and its implications on PAG tailings and waste rock oxidizing due to low water levels; b. the minimum annual precipitation required to maintain PAG materials below the water table in the TMF; c. scenarios during closure that would cause the water table in the TMF to be low enough to allow oxidation of the PAG materials; and d. the potential effects associated with metals mobilization under these scenarios.	Section A.7.12.1.2 Appendix A.4D Report on the Feasibility Design of the Tailings Management Facility
R245	A plan describing mitigations in case unsuitable (e.g. elevated metal concentrations) water is encountered via pit dewatering (i.e. prior to sufficient storage developed on-site).	Section A.7.13.1.1
R246	Details on the characterization of groundwater and flow patterns near the adit.	Section A.7.14.1.1
R247	A comprehensive description of the adit including: a. physical characteristics (e.g. incline or decline, dimensions, length); and b. extent of fracturing.	Section A.7.14.1.2
R248	How and when the adit will be reclaimed. Describe implications of reclamation on surrounding groundwater and infrastructure such as the HLF.	Section A.7.14.1.3
R249	Reasons for missing data at regional climate stations (i.e. was the station not operated for budget considerations or did an extreme weather event destroy the station).	Section A.8.2.1.1

Request #	Request for Supplementary Information	Response
R250	Rationale for a linear orographic factor at the Project site for 24-hour extreme events considering available data and any terrain effects.	Section A.8.2.1.2
R251	Additional rationale for developing the precipitation return period events (e.g. extreme rainfall). Details should include the methodology for developing the 200 and 1000-year return period events as well as rationale for using the Gumbel distribution.	Section A.8.2.1.3
R252	Discussion of the role of aspect in relation to climate variables at the Project site.	Section A.8.2.1.4
R253	Justify the use of only Pelly Ranch in building climate baseline data at the Project site for periods where data are unavailable for the Project location.	Section A.8.2.1.5
R254	Confirm that on-site meteorological data collection is ongoing. Provide raw and processed data and recalculate precipitation estimates and measures of variability.	Section A.8.2.1.6
R255	Clarification regarding the climate variables that have been utilized as part of project safety and design as well as an explanation for why those climate variables have been chosen.	Section A.8.2.1.7
R256	Clarification regarding the values used when considering climate change projections and their interactions with the project.	Section A.8.2.1.8
R257	Additional information on wind speed/direction sensor position and height.	Section A.8.2.1.9
R258	Develop a more robust estimate of evaporation and evapotranspiration using air temperature, relative humidity, wind speed and solar radiation.	Section A.8.2.1.10
R259	A discussion on how variability and uncertainty associated with the impacts of climate change was considered in Project safety and design and how those impacts will be mitigated, particularly with respect to permafrost thaw and hydrological changes.	Section A.8.3.1.1
R260	In planning the design and construction of the mine, a greater range of potential change should be considered (and not just the mean). For example, if the range of precipitation change is projected to be between 5 and 25 percent, design considerations should not be limited to a mean (15 percent) but should address the potential maximum (25 percent). Please clarify what values were used when considering climate change projections and their interactions with the Project.	Section A.8.3.1.2
R261	Clarification on the calculations related to the projected rate of increase of flow, including details on how historical trends for Big Creek have been taken into consideration in the projection as well as how the potential maximum increase has been addressed.	Section A.8.3.1.3
R262	The CALPUT and CALMET input files such that a recreation of the model is possible.	Section A.8.4.1.1 Appendix A.8A Emissions Inventory for Construction and Operations
R263	Details on the specifications of ambient air monitoring and meteorological equipment.	Section A.8.4.1.2

Request #	Request for Supplementary Information	Response
R264	An analysis of wind directions compared to other regional sites.	Section A.8.4.1.3
R265	A detailed emission inventory for construction and operational activities.	Section A.8.4.1.4 Appendix A.8A Emissions Inventory for Construction and Operations
R266	Clarification if mitigations, such as ultra-low sulphur fuel, proposed for air quality were reflected in model parameters. If not, results of the air quality model with the mitigations reflected in model parameters.	Section A.8.4.2.1
R267	If predicted air quality, after mitigations, results in exceedances, provide mitigations for identified exceedances.	Section A.8.4.2.2
R268	The raster data generated from the CALPUFF model in a standard GIS format.	Section A.8.4.3.1
R269	A description of predicted exceedances including concentrations and predicted frequency.	Section A.8.4.3.2
R270	Details on the compositions of dust generated by the mine and how this is expected to compare with the proposal's baseline data.	Section A.8.5.1.1
R271	Details on volumes of water required for dust management and clarification if this water was accounted for in overall water use requirements.	Section A.8.5.1.2
R272	Update to Table 22.3-2 to include a conclusive list of proposed mitigation measures for potential project effects on air quality.	Section A.8.6.1.1
R273	An updated Section 10 of the proposal which reflects the current <i>Fisheries Act</i> (Fisheries Protection Provisions). This updated section should include the identification of project components likely requiring a paragraph 35(2)(b) <i>Fisheries Act</i> authorization.	Section A.10.2.1.1 Appendix A.10A Updated Fish Habitat Offsetting Plan
R274	Proposed charge weights to be used for different project activities including the operation of the mine pit, and construction of infrastructure site pads and access roads. Indicate setback distances from fish-bearing waters for each activity and an analysis of potential effects based on this information.	Section A.10.3.1.1 Appendix A.10A Updated Fish Habitat Offsetting Plan Appendix A.10B Fish Habitat Evaluation: Instream Flow and Habitat Evaluation Procedure Study
R275	Baseline data for the creek intersected by the proposed airstrip, Taylor Creek, and other Casino Creek tributaries lacking baseline data including: a. the existing condition, including quality and relative abundance, of the fish habitat; and b. the species and life stages of fish present.	Section A.10.4.1.1
R276	A discussion of fish populations, densities, and diversity in downstream watercourses including lower Dip Creek and the Klotassin River.	Section A.10.4.1.2

Request #	Request for Supplementary Information	Response
R277	Maps demonstrating fish presence, assumed absence, or observed absence by stream segment. Include the stream channel intersected by the proposed airstrip, Casino Creek tributaries such as Taylor Creek, and the Freegold Road. Where fish are assumed as absent, provide rationale.	Section A.10.4.1.3
R278	Maps demonstrating fish habitat quality and fish distribution by species for watercourses including Casino Creek and its tributaries, Dip Creek downstream of its confluence with Casino Creek, and Britannia Creek and its tributaries. Include any seasonal barriers to movement.	Section A.10.4.1.4
R279	A table or other tool identifying the location in the proposal of supporting baseline information for each of the potentially impacted watercourses.	Section A.10.4.1.5
R280	Information on the time of year each of the water bodies potentially affected by the Project are likely to be used by the various life stages of each fish species.	Section A.10.4.1.6
R281	Appendices A through E for Appendix 10 A – Casino Project Fish and Aquatic Resources Baseline Report, November 12, 2013, by Palmer Environmental Consulting Group Inc.	Section A.10.4.2.1
R282	A description of the detailed methods used to calculate the estimated reductions in flow and wetted area from baseline conditions in all watercourses affected. (EcoMetrix)	Section A.10.5.1.1 Appendix A.10B Fish Habitat Evaluation: Instream Flow and Habitat Evaluation Procedure Study
R283	An indication of and rationale for the selected minimum in-stream flow threshold. (EcoMetrix)	Section A.10.5.1.2 Appendix A.10B Fish Habitat Evaluation: Instream Flow and Habitat Evaluation Procedure Study
R284	The full documents cited as KPL 2013 and Normandeau, November 2013. (EcoMetrix)	Section A.10.5.1.3 Appendix A.10B Fish Habitat Evaluation: Instream Flow and Habitat Evaluation Procedure Study

Request #	Request for Supplementary Information	Response
R285	A discussion of the extent to which the identified overwintering and spawning habitat in the affected portion of Casino Creek is actively used by Arctic grayling for these stages, and the potential effects of the Project to this habitat.	Section A.10.5.1.4 Appendix A.10A Updated Fish Habitat Offsetting Plan Appendix A.10B Fish Habitat Evaluation: Instream Flow and Habitat Evaluation Procedure Study
R286	A discussion of the potential fish barrier proposed to be installed above the Casino- Brynelson Creek confluence. This discussion should include: a. a description of the barrier proposed, and details regarding its installation; and b. identification of alternative mitigations to the physical fish barrier in this location to prevent winter kill and fish stranding.	Section A.10.5.2.1
R287	The degree of risk for fish stranding to actually occur in Casino Creek due to low water flow attributed to the operation of the tailings management facility.	Section A.10.5.2.2 Appendix A.10B Fish Habitat Evaluation: Instream Flow and Habitat Evaluation Procedure Study
R288	A discussion of and rationale for the diversion of this drainage around the airstrip. This discussion should consider alternatives, such as allowing the drainage to pass underneath the airstrip.	Section A.10.5.3.1 Appendix A.10A Updated Fish Habitat Offsetting Plan Appendix A.10B Fish Habitat Evaluation: Instream Flow and Habitat Evaluation Procedure Study
R289	A discussion of the potential for seasonal stranding of fish in the lower portion of the dewatered channel.	Section A.10.5.3.2
R290	An updated Fish Habitat Compensation Plan to align with the new requirements of the <i>Fisheries Protection Provisions</i> of the new <i>Fisheries Act</i> .	Section A.10.5.4.1 Appendix A.10A Updated Fish Habitat Offsetting Plan

Request #	Request for Supplementary Information	Response
R291	<p>A detailed description of the physical habitat simulation model. Details should include:</p> <ul style="list-style-type: none"> a. data used in the model (habitat and hydrological) and methods for field data collection; b. locations of all transects (of each mesohabitat type - riffle, pool and glide) on each watercourse; c. habitat suitability indices (HSI) curves for Arctic grayling in all life stages which consider site specific conditions; d. species and life stage periodicity chart highlighting the seasonal use of the study area by different life stages of the target species, and a discussion of whether migration patterns were considered in the model; e. discussion of whether seasonal use by life stage requirements of target species was considered in the model; f. target flow velocities for low, mid and high flows, with a comparison to the baseline and projected flows for construction, operation and closure phases, indicating and providing rationale for the selected minimum in-stream threshold; g. discussion of impacts to Britannia Creek from reduced flows in Canadian Creek as flow is redirected to the pit; and h. a comparison of percent reduction in flow for areas affected by reduced stream flows considering natural variability observed in stream. 	<p>Section A.10.5.5.1 Appendix A.10B Fish Habitat Evaluation: Instream Flow and Habitat Evaluation Procedure Study</p>
R292	<p>A detailed description of the habitat evaluation procedure. Details should include:</p> <ul style="list-style-type: none"> a. methods and assumptions for the calculation of habitat lost; b. summary of HSI values for each variable; c. identification of and rationale for habitat types included; and d. data and methods used to calculate habitat gains, including from all proposed compensation options. 	<p>Section A.10.5.5.2 Appendix A.10B</p>
R293	<p>Clarification of whether the estimated habitat loss in Dip Creek was accounted for in the total habitat loss calculation for the proposed airstrip tributary diversion channel.</p>	<p>Section A.10.5.6.1</p>
R294	<p>Clarification of, and rationale for, the methods used to calculate the figures in Table 4-5: in-stream habitat impacts and in-stream habitat gains. This clarification should include the calculation of 4753 m² as identified in Table 4-5, based on the proposed airstrip diversion channel width of 2.5 m and length of 1 509 m.</p>	<p>Section A.10.5.6.2 Appendix A.10A Updated Fish Habitat Offsetting Plan</p>
R295	<p>Clarification of whether the assumed fish bearing streams (those of less than 20 percent gradient) were included in the habitat evaluation procedure analysis for habitat loss and compensation.</p>	<p>Section A.10.5.7.1</p>
R296	<p>Identification and rationale for the type(s) of habitat created by ford restoration.</p>	<p>Section A.10.5.8.1 Appendix A.10A Updated Fish Habitat Offsetting Plan</p>

Request #	Request for Supplementary Information	Response
R297	Clarification of whether clear-span bridges are proposed for all fish-bearing watercourses. If culverts will be installed on some fish-bearing creeks, please provide rationale, mitigations, and incorporate habitat losses into the habitat compensation plan.	Section A.10.6.1.1
R298	Details on existing crossing structures no longer used for portions of the Freegold Road upgrade once the road is re-aligned.	Section A.10.6.2.1
R299	Details on when and how the Nordenskiold River bridge pier will be constructed.	Section A.10.6.3.1
R300	The quality and type of fish habitat (e.g. highly suitable spawning and/or rearing habitat, confirmed spawning habitat, and migratory channel) potentially affected by the Nordenskiold River bridge. Discussion should include identification of potential effects of the bridge and the pier, focusing on potential long-term morphological changes to the river in contrast to natural morphological changes.	Section A.10.6.3.2
R301	The fish species (and their life stages) present in the area potentially affected by the Nordenskiold River bridge. Discussion should include identification of potential effects of the bridge and the pier.	Section A.10.6.3.3
R302	A list of stream crossings for the Freegold Road including stream name, kilometre marker, crossing properties and the type of crossing, considering DFO's definition of clear-span crossing.	Section A.10.6.4.1
R303	An assessment of the overall erosion and sedimentation risk that will form the basis for designing and ultimately preparing an erosion and sediment control plan for the Freegold Road Upgrade, Airstrip Access Road and Casino Mine site.	Section A.10.6.5.1
R304	Identification of fish-bearing and non fish-bearing reaches of affected watercourses in the Map Series 3 (overall erosion and sedimentation risk) of the Erosion and Sedimentation Risk Assessment Report.	Section A.10.6.5.2
R305	Discussion on the methods of monitoring for erosion and sedimentation during all phases of the Project.	Section A.10.6.5.3 Appendix A.10A Updated Fish Habitat Offsetting Plan Appendix A.22C Sediment and Erosion Control Management Plan
R306	Discussion of and rationale for the exclusion of W16 or other downstream locations from monitoring throughout the life of the Project.	Section A.10.7.1.1
R307	The information related in Section 7.4.5.1 and 7.4.5.2.	Section A.10.8.1.1
R308	Discussion of the potential effects of the construction, operation, and possible decommissioning of other project infrastructure on habitat (such as fens and tors) with elevated potential for rare species.	Section A.11.2.1.1 Appendix A.12A Wildlife Monitoring and Mitigation Plan Appendix A.22C Sediment and Erosion Control Plan

Request #	Request for Supplementary Information	Response
R309	Discussion of the potential effects of the construction, operation, and possible decommissioning of the airstrip and airstrip access road on proximate vegetation and wetlands. In particular, this discussion should identify impacts to downslope wetlands.	Section A.11.2.1.2 Appendix A.12A Wildlife Monitoring and Mitigation Plan Appendix A.22C Sediment and Erosion Control Plan
R310	An update to Figure 3.1 with the ecosystem types identified in the large vegetation polygon overlapping with the centre of the airstrip.	Section A.11.2.1.3
R311	Discussion of the use of “Loss of Vegetation Associations” and “Wetlands and Riparian Vegetation Associations” as indicators for vegetation health.	Section A.11.3.1.1 Appendix A.12A Wildlife Monitoring and Mitigation Plan Appendix A.22C Sediment and Erosion Control Plan
R312	A clear mitigation (buffer zone and avoidance) and management plan (where avoidance cannot be achieved) to support the residual effect assessment, for both the construction and operation of the project components.	Section A.11.3.1.2 Appendix A.10A Fish Habitat Offsetting Plan Appendix A.22C Sediment and Erosion Control Plan
R313	Details on a conceptual integrated management plan for project activities affecting vegetation. Details should include: a. proposed buffer zones around wetlands, valuable vegetation associations or sites, and riparian areas which also consider the needs of wildlife for movement corridors; b. species to be used for re-vegetation; c. timeframe for re-vegetation and reclamation activities; d. measures to monitor success and take corrective actions as necessary; and e. control of invasive species.	Section A.11.4.1.1 Appendix A.10A Fish Habitat Offsetting Plan Appendix A.22C Sediment and Erosion Control Plan Appendix A.22D Invasive Species Management Plan
R314	The correct references for each place in Section 12 that this error text appears.	A.12.2.1.1
R315	Discussion on the effects to wildlife for caribou, wood bison, and Dall sheep, related to predator-prey systems affected by the Freegold Road, airstrip and airstrip access road, through all project phases. This discussion should: a. use the most current data and information available; b. include changes to population dynamics; and c. include areas of wildlife concentration, such as mineral licks.	A.12.3.1.1 Appendix A.12A Wildlife Mitigation and Monitoring Plan

Request #	Request for Supplementary Information	Response
R316	Describe how wildlife crossing areas will be implemented. Details should include: a. the schedule and methods for data collection and analysis regarding the determination of high use wildlife crossing areas along the access roads; and b. how crossing areas may change seasonally and annually.	A.12.3.2.1
R317	Detail on road maintenance activities (e.g. road salt, road margin vegetation management for wildlife, etc.), and other mitigations (such as reducing the frequency of traffic, having periods of time with no traffic, etc.), with a particular emphasis on key wildlife areas. This discussion should include rationale for the effectiveness of mitigations.	A.12.3.3.1 Appendix A.22E Road Use Plan Appendix A.12A Wildlife Mitigation and Monitoring Plan
R318	Wildlife monitoring and adaptive response strategies.	A.12.3.3.2 Appendix A.12A Wildlife Mitigation and Monitoring Plan
R319	Alternative mitigation measures to reduce or eliminate negative effects on wildlife in the event that the Proponent does not have full legal authority to operate and manage the road.	A.12.3.3.3 Appendix A.22E Road Use Plan Appendix A.12A Wildlife Mitigation and Monitoring Plan
R320	Further discussion on the potential indirect effects to wildlife from harvesting.	A.12.3.3.4 Appendix A.12B Wildlife Baseline Report
R321	A discussion of noise associated with the Project in relation to the habitat suitability model using the most recent reference materials available. This discussion should include consideration of noise from all Project activities.	A.12.4.1.1
R322	A discussion of objectives for evaluating model assumptions for caribou disturbance, monitoring movement and potential changes in predation, and setting adaptive management thresholds to support actions which may mitigate adverse effects.	A.12.4.1.2 Appendix A.12A Wildlife Mitigation and Monitoring Plan
R323	A discussion of potential Project effects to the Fortymile caribou herd supported by available data.	A.12.4.1.3
R324	Discussion of the development of the RSF model, including all inputs. Consideration should be given to concerns raised by the Government of Yukon.	A.12.4.1.4
R325	Discuss how the RSF model: a. reflects the distribution of high quality habitat across the Klaza caribou herd's range; and b. accounts for the variability in caribou distribution based on environmental facts and among years.	A.12.4.1.5

Request #	Request for Supplementary Information	Response
R326	Discussion of the potential bias in the estimated winter range.	A.12.4.1.6 Appendix A.12B Wildlife Baseline Report
R327	Winter range map or maps that are representative of caribou use since the late 1980s.	A.12.4.1.7 Appendix A.12B Wildlife Baseline Report
R328	An evaluation of the Klaza caribou herd use of the local study area during summer, using the most recent GPS radio-collar data provided by the Government of Yukon.	A.12.4.1.8 Appendix A.12B Wildlife Baseline Report
R329	A discussion of how the Project may affect (e.g. fire suppression) the Dawson Range's fire regime and its corresponding implications to caribou and caribou habitat.	A.12.4.1.9
R330	Population survey data and demographic models for moose to determine sensitivity to change from potential additional predation or hunting pressure.	A.12.4.2.1
R331	Moose harvest data by sex, including an estimate of First Nations harvest, as well as a population model and sensitivity analysis.	A.12.4.2.2 Appendix A.12B Wildlife Baseline Report
R332	Mitigation measures for displacement/mortality of moose near roads.	A.12.4.2.3 Appendix A.12A Wildlife Mitigation and Monitoring Plan
R333	Detailed design of the pipeline with rationale. If a final design cannot be selected at this stage, please provide detailed design alternatives, and include the potential effects associated with each. In the event that design has not been finalized, please provide the schedule and methods for moose monitoring efforts to inform development of the pipeline.	A.12.4.2.4 Appendix A.12A Wildlife Mitigation and Monitoring Plan Appendix A.12B Wildlife Baseline Report
R334	A discussion of and rationale for the selected model. This discussion should include: a. rationale for the ratings assigned to the subalpine and low boreal zones, as well as the selection of north-facing slopes, which considers the comments made by the Government of Yukon; and b. an explanation of Figure 4.3 in the Wildlife Baseline Report showing habitat quality class, which includes statistical support for each of the bars.	A.12.4.2.5 Appendix A.12C Moose Late Winter Habitat Suitability Report
R335	A discussion of and rationale for a 300 m zone of influence. This discussion should consider increasing the zone to at least 500 m.	A.12.4.2.6 Appendix A.12C Moose Late Winter Habitat Suitability Report

Request #	Request for Supplementary Information	Response
R336	Detail on baselines survey efforts, including den surveys, and including routes taken.	A.12.4.3.1 Appendix A.12B Wildlife Baseline Report
R337	Additional data (one year minimum) on bear den presence and distribution within the project area.	A.12.4.3.2
R338	Discussion regarding the dates provided by the Government of Yukon for grizzly bear denning and how these dates may affect or be affected by project activities.	A.12.4.3.3
R339	<p>Details on the Habitat Suitability and Habitat Effectiveness models, including:</p> <ul style="list-style-type: none"> a. additional clarification on why habitat types were rated as presented; for example, alpine habitat is rated as 'low' (0) value in the spring. For bears, alpine has high habitat value in spring; b. clarification on traffic projections; c. clarification on the dates used to define the different seasons in the HE model; d. clarification on the coefficients used to develop the HE model; and e. clarification on disturbance events considered in the development of the models. 	A.12.4.3.4 Appendix A.12B Wildlife Baseline Report
R340	<p>Details on the Security Areas model, including:</p> <ul style="list-style-type: none"> a. rationale (including reference if possible) for the selection of the 2300 m asl as the threshold for available security areas, as opposed to 1900 m asl; b. clarification on traffic projections; and c. clarification on disturbance events considered in the development of the model. 	A.12.4.3.5 Appendix A.12B Wildlife Baseline Report
R341	A discussion of and rationale for the use of a qualitative assessment, as opposed to quantitative, for grizzly bear mortality.	A.12.4.3.6
R342	Clarification of and rationale for the grizzly bear density estimate for the area.	A.12.4.3.7
R343	<p>More information on Table 8.1 of the grizzly bear effects assessment, including:</p> <ul style="list-style-type: none"> a. proportion of males and females harvested; b. a discussion of how the numbers relate to the population estimate; and c. a discussion of the population-level effects of direct mortality. 	A.12.4.3.8
R344	<p>A discussion on the mortality estimate from the mine site, Freegold Road, and airstrip and airstrip access road. Discussion should include:</p> <ul style="list-style-type: none"> a. conflict kills and road kills; b. consideration of high traffic roads vs. low traffic trails and different traffic types; c. assumptions used for mortality risk assessment related to the Freegold Road and mine site; and d. clarification of and rationale for the quota identified for annual allowable human- caused mortality. 	A.12.4.3.9 Appendix A.12A Wildlife Mitigation and Monitoring Plan

Request #	Request for Supplementary Information	Response
R345	Collared pika colony occupancy data to accurately predict species' current abundance and distribution. If occupancy data is unavailable, proposed methods for collecting such data prior to habitat alteration.	A.12.4.4.1 Appendix A.12B Wildlife Baseline Report
R346	A habitat suitability model and related analyses, which identifies potential denning habitat of wolverines in the local study area and regional study area.	A.12.4.5.1 Appendix A.12B Wildlife Baseline Report
R347	A risk assessment for wolverines which considers the habitat suitability model. The assessment should identify potential effects to natal and maternal den sites and proposed measures for avoiding disturbance of females with kits.	A.12.4.5.2 Appendix A.12A Wildlife Mitigation and Monitoring Plan Appendix A.22A Waste and Hazardous Materials Management Plan
R348	Areas of use by the little brown myotis within the LSA and RSA, particularly for roosting and foraging.	A.12.4.6.1 Appendix A.12B Wildlife Baseline Report
R349	If baseline data is unavailable, proposed mitigation and monitoring efforts for the species.	A.12.4.6.2 Appendix A.12A Wildlife Mitigation and Monitoring Plan Appendix A.12B Wildlife Baseline Report
R350	Baseline information for Dall sheep or, if unavailable, proposed mitigation and monitoring measures, particularly in relation to the Freegold Road.	A.12.4.7.1 Appendix A.12B Wildlife Baseline Report
R351	Discussion of alpine breeders as key indicator species, which considers their associated priority for conservation and the project's potential effects on this group.	A.12.5.1.1
R352	The location of alpine meadows in the local study area and regional study area.	A.12.5.1.2
R353	The results of baseline surveys for short-eared owl, horned grebe, and common nighthawk pre-construction surveys (i.e. dusk call playback surveys) and a description of plans for mitigation and monitoring of potential adverse effects cause by the Project.	A.12.5.2.1
R354	Additional detail on the mortality risk to birds including identifying areas of highest risk.	A.12.5.3.1 Appendix A.12A Wildlife Mitigation and Monitoring Plan

Request #	Request for Supplementary Information	Response
R355	Details on the rusty blackbird model. Details should include model inputs and assumptions and indicate whether and how it accounts for small wetlands.	A.12.5.4.1
R356	Discussion regarding the models for olive-sided flycatcher and short-eared owl, including categorization of high quality habitat types. Consideration should be given to an expanded model for the short-eared owl and olive-sided flycatcher.	A.12.5.4.2
R357	A map showing observation sites and potential breeding locations for horned grebes within the project footprint.	A.12.5.4.3
R358	Rationale behind decreasing habitat quality ratings one class, as opposed to two in some cases.	A.12.5.5.1
R359	Proposed mitigations for effects of chronic noise on bird species.	A.12.5.5.2
R360	Discussion of and rationale for buffer sizes around active bird nests.	A.12.5.5.3 Appendix A.12A Wildlife Mitigation and Monitoring Plan
R361	Confirmation on whether the cliff-nesting raptor survey involved re-visiting previously documented nests.	A.12.5.6.1
R362	A figure showing the aerial route followed during cliff-nesting raptor surveys within the local study area and regional study area.	A.12.5.6.2
R363	Rationale for the size of the proposed buffers around cliff-nesting raptor nests.	A.12.5.7.1 Appendix A.12A Wildlife Mitigation and Monitoring Plan
R364	Methods used to identify wetlands, including open-water wetlands and small ponds.	A.12.5.8.1
R365	Information displaying the locations of these wetlands and ponds, and their distribution across the LSA.	A.12.5.8.2
R366	Discussion of potential effects to these wetlands and ponds, and any associated mitigations.	A.12.5.8.3 Appendix A.12A Wildlife Mitigation and Monitoring Plan
R367	An effects assessment of the TMF wetlands, as they relate to waterfowl.	A.12.5.9.1 Appendix A.12A Wildlife Mitigation and Monitoring Plan
R368	Monitoring and mitigations to prevent waterfowl from utilizing the TMF wetlands and other mine water bodies (events pond, pit lake, etc.). Details should include effectiveness of proposed mitigations.	A.12.5.9.2 Appendix A.12A Wildlife Mitigation and Monitoring Plan

Request #	Request for Supplementary Information	Response
R369	Clarification on the meanings of “unacceptable levels of trace metals” and “limited effects” in relation to waterfowl, and rationale for the statement that despite unacceptable levels of trace metals shown by water quality monitoring, resulting effects to waterfowl will be limited.	A.12.5.9.3
R370	Rationale for how water quality mitigation measures alone will address concerns around waterfowl exposure to elevated levels of trace metals.	A.12.5.9.4 Appendix A.12A Wildlife Mitigation and Monitoring Plan Appendix A.7B Water Quality Model Report
R371	Clarification as to whether Figure 8.2 in Section 12B refers to only passerine bird species or to upland birds in general.	A.12.5.10.1
R372	The potential effects of climate change on key indicator species over the life of the Project.	A.12.6.1.1
R373	Discussion of monitoring and adaptive management measures to be implemented to detect and mitigate potential effects of the Project in the context of climate change.	A.12.6.1.2 Appendix A.12A Wildlife Mitigation and Monitoring Plan
R374	Details on the timing, spatial boundaries, frequency, and general methods of monitoring surveys for caribou, moose, carnivore dens, pika colonies, obligate alpine breeders, waterfowl, and bird species at risk.	A.12.7.1.1 Appendix A.12A Wildlife Mitigation and Monitoring Plan
R375	Discussion and rationale on the Proponent’s position that the boom and bust cycle to be either minimal or acceptable within the context of Yukon. Consideration should be given to the contribution of annual taxes, royalties and GDP to the Yukon economic base and the scale of the Project.	Section A.15.2.1.1 Appendix A.13A Economic Impacts of the Casino Mine Project
R376	A description of what measures will be put in place to reduce the effects of boom and bust cycles.	Section A.15.2.1.2
R377	Identify specific conditions and scenarios where the Project might operate on a reduced scale.	Section A.15.2.1.3
R378	Details regarding any specific methods that the Proponent intends to use to enable local and Yukon businesses to supply or service the Project.	Section A.15.3.1.1 Appendix A.22F Socio-Economic Management Plan
R379	Details regarding any specific methods that the Proponent intends to use to enable First Nation businesses to supply or service the Project.	Section A.15.3.1.2 Appendix A.22F Socio-Economic Management Plan

Request #	Request for Supplementary Information	Response
R380	A detailed plan on how the proponent intends to monitor and manage socio-economic effects. This plan should include: a. objectives, indicators, and monitoring methods; b. thresholds and triggers for action; and c. adaptive management strategies.	Section A.15.4.1.1 Appendix A.22F Socio-Economic Management Plan
R381	The following referenced report: MNP LLP. 2013. Economic Impacts of the Casino Mine Project. March 2013. Casino Mine Corporation.	Section A.13.4.1.1 Appendix A.13A Economic Impacts of the Casino Mine Project
R382	A plan on how the Proponent intends to meet their commitment to hire within Yukon including: a. anticipated training programs; b. a monitoring mechanism including indicators; c. how the plan has or will involve communities and First Nations considering Chapter 22 of the Umbrella Final Agreement; d. implementation timelines; and e. apprenticeship and co-op opportunities.	Section A.14.2.1.1 Appendix A.22F Socio-Economic Management Plan
R383	Transportation alternatives for potential employees in Yukon communities outside of Whitehorse during each Project phase.	Section A.14.3.1.1
R384	Details of the “hiring policy that encourages the employment of workers from Yukon and in particular the rural communities of the LSA” and workforce opportunities for residents in Carmacks and Pelly Crossing and citizens of affected FNs.	Section A.14.3.1.2 Appendix A.22F Socio-Economic Management Plan
R385	Assumptions supporting migration estimates, including between communities in Yukon and how downward population pressures were considered.	Section A.14.4.1.1
R386	A breakdown of direct Project employment projected for each affected community. Please indicate if employees are new, existing, or returning residents or from other communities in Yukon.	Section A.14.4.1.2
R387	Clarify if the flexible rotations, counselling services, and adaptive management are the mitigation strategies for the proposed shift structure as suggested in the proposal. Please elaborate in detail for each mitigation strategy.	Section A.14.5.1.1 Appendix A.22F Socio-Economic Management Plan
R388	Details on how CMC will accommodate cultural and community events, including funerals and potlatches, in its proposed shift structure.	Section A.14.5.1.2 Appendix A.22F Socio-Economic Management Plan
R389	Rationale for the determination of high resilience as the context for possible effects to community vitality. In addition, provide a discussion on the implications of using a more conservative estimate of resiliency.	Section A.16.2.1.1 Appendix A.22F Socio-Economic Management Plan

Request #	Request for Supplementary Information	Response
R390	A plan for of how community well-being will be monitored, including: a. a clear definition of community wellbeing and community vitality, and how the community has been involved in the process of definition; b. indicators to monitor and evaluate the level of community well-being and vitality in each affected community; c. methods of monitoring each indicator; d. how the Proponent will communicate monitoring results; and e. any monitoring efforts outside of Pelly Crossing and Carmacks.	Section A.16.3.1.1 Appendix A.22F Socio-Economic Management Plan
R391	A description of how these suggested valued components can be incorporated into the Project's management, effects monitoring, and community involvement.	Section A.16.4.1.1
R392	A Heritage Management Plan including: a. a description of input from First Nations including Traditional Knowledge; b. a range of mitigation measures; c. heritage resource management framework; d. definitions and objectives; and e. a monitoring and evaluation mechanism.	Section A.18.2.1.1 Appendix A.18A Casino Summary Heritage Report Appendix A.18B Casino Heritage Sites Summary
R393	A table summarizing the number of historical and archaeological sites, their relative location in relation to the mine site, the Freegold Road Upgrade, the Freegold Road Extension, the airstrip location and associated borrow sites. Within that table include additional details such as: a. characterization of predicted disturbance; b. proposed Mitigation; c. description of the site; d. if applicable, the Project component footprint that the site overlaps; and e. site name, date of discovery, general location and traditional territory.	Section A.18.3.1.1 Appendix A.18B Casino Heritage Sites Summary
R394	Clarification regarding whether avoidance is possible for the five historic sites located along the Freegold Road Extension. If not, a description of next steps and proposed mitigations is required.	Section A.18.4.1.1 Appendix A.18B Casino Heritage Sites Summary
R395	Clarification on the specific efforts and processes undertaken by the Proponent to gather TK and TLU in order to inform the proposal. A description of what TK or TLU information the Proponent received for the purposes of drafting the proposal.	Section A.2.2.1.1 Appendix A.2A
R396	A TK and TLU study for the Project.	Section A.2.2.1.2
R397	A review of effects from resource projects and effects on TLU in a northern context.	A.2.2.1.3
R398	A framework for monitoring effects to TLU resulting from the Project.	Section A.2.2.1.3 Appendix A.22F
R399	An assessment of impacts of the Project on traditional economy.	Section A.2.2.1.4

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R400	<p>A discussion of the potential effects of the Project to commercial, recreational and Aboriginal fisheries (e.g. Arctic grayling and Chinook salmon). This discussion should include:</p> <ul style="list-style-type: none"> a. a geographic scope that includes areas downstream of Dip Creek up to and including the White River; b. consideration of the changes in rearing, spawning, and overwintering habitat; c. a consideration of the migratory nature of various fish species; and d. potential fish kills and stranding. 	Section A.19.2.1.1
R401	Description of any identified plant species of traditional, cultural, or economic importance within the Project footprint. Include a description of any efforts to engage First Nations or other land users in identifying plants of concern.	Section A.19.3.1.1
R402	Any ground studies that sought to identify and map plants of concern.	Section A.19.3.1.2
R403	If, during consultation with First Nations, any concerns were raised on impacts to important areas of wildlife harvest.	Section A.19.4.1.1
R404	A monitoring plan for induced hunting effects along the Freegold Road, either independently or in conjunction with First Nations.	Section A.19.4.1.2
R405	Description of discussions with and feedback from affected trapline concession holders including how many trapline concession holders were contacted and responded.	Section A.2.3.1.1
R406	Description of discussions with and feedback from affected outfitting concession holders including how many outfitting concession holders were contacted and responded.	Section A.2.3.1.2
R407	A summary of any geographically specific important areas for outfitting or trapping that overlap or may be affected by the Project and the species involved.	Section A.19.5.1.1
R408	A description of any contact or discussions between CMC and mineral rights holders in relation to the road.	Section A.2.4.1.1
R409	A rationale for why tenure No. 334151 is not considered in the effects assessment.	Section A.19.6.1.1
R410	A mitigation strategy for the cabin located at the southern edge of a proposed borrow pit and what if any measures will be in place to ensure continued access. In addition, identify whether the owner has been contacted or not. If so, please provide information regarding the outcome of this contact.	Section A.19.6.1.2
R411	Details regarding how the noise model accounted for seasonal variability.	Section A.9.2.1.1
R412	Details how the collected baseline data informed modeling or if other sources were used.	Section A.9.2.1.2
R413	Rationale on model selection including model limitations.	Section A.9.2.1.3
R414	Rationale on why noise levels in Carmacks and the FGR were not modeled.	Section A.9.2.1.4
R415	Identification of reference equipment used to calculate sound pressure levels.	Section A.9.2.1.5

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R416	Confirmation that the noise modeling accounts for air traffic, shovels, cycloning, blasting, the concrete batch plant, and HLF crushing operations and revised predictions if these are not included in the original proposal.	Section A.9.2.1.6
R417	A revision of the section on accidents and malfunctions to address worker and public health and safety.	Section A.21.2.1.1 Appendix A.22B Spill Contingency Management Plan
R418	Clarification of the procedures that will be established in the event of a Level II Emergency Event, as defined in the conceptual Emergency Response Plan, and how these procedures rely on existing infrastructure and services.	Section A.21.3.1.1 Appendix A.22B Spill Contingency Management Plan
R419	For accidents on the Freegold Road, a description of how emergency services will be coordinated, and where these services will come from.	Section A.21.3.1.2 Appendix A.22E Road Use Plan
R420	A description of any discussions between CMC and protective and emergency services regarding increases in traffic and therefore and increase in accidents on the Freegold Road, Alaska Highway or Klondike Highway?	Section A.21.3.1.3 Appendix A.22G LNG Management Plan Appendix A.22A Waste and Hazardous Materials Management Plan Appendix A.22B Spill Contingency Management Plan
R421	Details regarding on-site personnel, equipment, and services that are provided based on anticipated requirements.	Section A.21.3.1.4
R422	Describe and outline how would the mine site be evacuated in different seasons. Details should include: a. length of time an evacuation would require; and b. logistics for transportation.	Section A.21.3.2.1
R423	The rationale for two hours, or 682 m ³ , as the minimum capacity for water storage for on- site firefighting capacity.	Section A.21.4.1.1 Appendix A.4M Processing Flow Sheets
R424	Confirmation of where off-site emergency fire services for the Project will come from.	Section A.21.4.1.2
R425	A description of the human element in fire suppression and equipment available including: a. the level of training will be available to workers in fire suppression; b. a description of firefighting infrastructure will be on-site; and c. a description of any equipment available for first responders.	Section A.21.4.1.3
R426	An elaboration on the need or absence of need for non-water jet firefighting methods.	Section A.21.4.1.4

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R427	Description of the consideration of fire at the cyanide, LNG, or explosives facilities.	Section A.21.4.1.5 Appendix A. 22G LNG Management Plan
R428	A description of any plans to train and familiarize first responders with the Project and associated hazards, infrastructure, and layout.	Section A.21.4.1.6
R429	Rationale for the statement in Section 20.3.4.4 that wildfire will not cause a shutdown of the mine for more than 24 hours.	Section A.20.2.1.1
R430	Implications to the Project if a wildfire results in a mine shutdown, or access road closure, for more than 24 hours.	Section A.20.2.1.2
R431	A description of any medical infrastructure that will be in place on-site regarding medical emergencies, and the depth of nursing, pharmaceutical, and first aid services that CMC forecasts as being available on-site.	Section A.21.5.1.1
R432	Details on the capacity to provide medical treatment planned in event of a potential delay to emergency response. Please describe this in terms of both the ability to provide emergency medical care for multiple casualties concurrently as well as in terms of overall duration and level of care.	Section A.21.5.1.2
R433	Considering the remote nature of the Freegold Road, a description of medical and communication capacity along the Freegold Road and its extension including the need or absence of need for any helipads.	Section A.21.5.1.3
R434	A description of how a destination medical facility will be chosen and the threshold for medevac.	Section A.21.5.1.4
R435	Details of a Human Health Monitoring Plan.	Section A.22.2.1.1
R436	Any description of spill infrastructure along public highways or the Freegold Road upgrade and extension.	Section A.22.3.1.1 Appendix A.22B Spill Contingency Management Plan
R437	A complete list of floatation circuit and heap leach chemicals with their anticipated on-site storage capacities and rates of use.	Section A.22.3.2.1 Appendix A.4M Processing Flow Sheets Appendix A.22B Spill Contingency Management Plan
R438	A detailed Cyanide Transportation Management Plan. Details should be Yukon-focused, and in particular the Freegold Road to the Project site.	Section A.22.3.3.1 Appendix A.22B Spill Contingency Management Plan

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R439	<p>Clarification regarding handling, storage, and use of cyanide at the Project site. Details should include:</p> <ul style="list-style-type: none"> a. description of unloading process and area for solid sodium cyanide (NaCN); b. details on storage of solid NaCN in bulk bags; c. the process for moving: the solid NaCN from the unloading area to the storage area in the adsorption, desorption and recovery building; the solid NaCN from the storage area to the NaCN mix tank; and the NaCN from the mix tank to the liquid NaCN storage tank; d. use of level indicators and high-level alarms for the liquid NaCN mix and storage tanks; e. ventilation requirements for the solid NaCN in the cyanide storage area within the adsorption, desorption and recovery building; and f. ambient air monitoring requirements within the solid NaCN storage area, liquid NaCN mixing area and liquid NaCN storage area to protect workers. 	<p>Section A.22.3.3.2 Appendix A.4M Processing Flow Sheets</p>
R440	A detailed management plan for LNG.	<p>Section A.22.3.3.3 Appendix A.22G LNG Management Plan</p>
R441	A detailed management plan for explosives and its constituents.	<p>Section A.22.3.3.4 Appendix A.22A Waste and Hazardous Materials Management Plan</p>
R442	An assessment of risk for the transportation of LNG, cyanide, ammonium nitrate, and other hazardous materials with focus on sensitive areas such as major bridge and culvert crossings.	<p>Section A.22.3.3.5 Appendix A.22C Sediment and Erosion Control Plan Appendix A.22B Spill Contingency Management Plan</p>
R443	<p>A more detailed description of what will be included in the Emergency Response Plan for emergencies related to cyanide. Details should include:</p> <ul style="list-style-type: none"> a. potential cyanide failure scenarios appropriate for the site-specific environmental and operating circumstances; b. specific response actions such as clearing site personnel and advising potentially-affected communities; c. use of cyanide antidotes and first aid measures for cyanide exposure; and d. control of releases at their source and containment, assessment, mitigation and future prevention of releases. 	<p>Section A.22.3.3.</p>
R444	A comprehensive Human Health Risk Assessment for each stage of the Project.	<p>Section A.22.4.1.1</p>

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R445	Add a valued component and assessment for worker health and safety to the Project proposal.	Section A.5.2.1.1
R446	Describe how emergency and non-emergency services in Carmacks were factored into Project plans and design. Consideration should be given to health, law enforcement, conservation, and other government services.	Section A.21.6.1.1
R447	A detailed characterization of potential major mine infrastructure failures and proposed response measures to these events.	Section A.21.7.1.1
R448	An updated discussion regarding the likelihood and consequence of a TMF embankment failure considering the entire lifetime of the facility (i.e. in perpetuity) in light of updated site condition characterization and dam break/inundation analysis as outlined in other sections of the Adequacy Review Report.	Section A.21.7.1.2
R449	A Mine Infrastructure Failure Response Plan that includes consideration of updated site condition characterization and dam break/inundation analysis as outlined in other sections of the Adequacy Review Report.	Section A.22.5.1.1