

NO.	NIRB PHC DECISION (JULY 14, 2005)	Conformity Y/N	Location (Document and Section)	Comment
<b>KEY ISSUES IDENTIFIED BY THE BOARD</b>				
<b>6.1 Wildlife</b>				
a	Updated studies on wildlife movement in the project area, including the area traversed by the all-season road and winter caribou	Y	Baseline terrestrial ecosystem Sec 5.	The FEIS refers to ground surveys conducted along the all weather road corridor in October 2005 and bimonthly for the remainder of the year. Provide the results of those surveys and a discussion of how those results affect the wildlife assessment in the area of the all weather road
b	Better analysis of barriers and other options and approaches (such as air horns, fencing) to discourage wildlife from approaching the project area and especially the tailings impoundment area.	Y	Terrestrial ecosystem management sec 3.4.2.5	
c	More analysis and discussion regarding the potential for wildlife including birds and small animals to be affected by contaminants, including acid rock drainage and wind blown contaminants.	N	Terrestrial ecosystem management App B	This is an overview of the methodology for a screening level risk assessment and does not provide a discussion on the potential for adverse effects on birds and other wildlife from wind blown contaminants and those resulting from ARD.
<b>6.2 Fisheries and Aquatics</b>				
a	More information on the dewatering program, including the effect on the water levels, connecting channels and fish passage for remaining lakes; and the fish out program, including the process for removing the fish, the disposition of the dead or alive salvaged fish and the means for communicating the fish-out program to local residents.	Y	various	
b	Better description of the mine blasting program and the related plan to mitigate the effects of blasting on sensitive elements of fish habitat, such as eggs, food, and fry.	Y	Project Alternatives Sec 4.1	
c	More analysis on acid rock drainage to give a greater confidence that aquatic ecosystems will be protected during mine operation and mine closure.	Y	Physical EIA Tbl 5.6	
d	The effect of changes from the 2005 Mine Operations Plan on water balance.	Y	Mine waste and water management Sec 12	
<b>6.3 Waste Rock and Tailings Management</b>				
a	Better discussion of cover/capping program including cover materials, thickness, mitigation to avoid pollution of both surface and ground waters, and wind blown contaminants	Y	Reclamation & Closure, Section 4.5	Discuss cover/capping mitigation program to avoid wind blown contamination.
<b>6.4 Climate Change</b>				
a	The impact of climate change on tailings management	Y	Project Alternatives, Sections 3, 6 and 7	Provide plan for monitoring permafrost development in tailings area. Provide plan for the case where tailings do not freeze as predicted.
<b>6.5 Chemicals Management</b>				
a	Better description of cyanide used in the Project mining process	Y	Final Environmental Impact Statement, Appendix A; Hazardous Materials Management, Sections 1.2 and 2.2.1 and Appendix A	

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b	Better description of the Project's proposed blasting program and ammonium nitrate and explosives materials storage and management	Y	Hazardous Materials Management, Sections 1.2 and 4.0; Project Alternatives, Section 4.1 and Appendix C	
<b>6.6 All-Weather Road</b>				
a	More information to address public safety, including the Proponent's plans regarding all aspects of the traffic control and every aspect of cooperation with the community to plan for and resolve concerns.	Y	Access & Air Traffic Management; Final Environmental Impact Statement, Appendix A	
b	Exploration of regulatory aspects of the road, such as traffic control, including consultation with the Hamlet of Baker Lake, the Federal Government (including INAC if appropriate), and the GN to determine the potential roles all levels of government will play in the regulation of the road.	N	Public Involvement; Traditional Knowledge; Access & Air Traffic Management; Final Environmental Impact Statement, Appendix A	Conduct and provide results of consultation with Hamlet, GN, Government of Canada and KIA on the issue of potential roles all levels of government will play in the regulation of the road
c	Long term options for the road, including the exploration of options to keep the road open after mine closure and maintenance plans for the road in the event of the decision is made to keep the road open	N	Access & Air Traffic Management; Final Environmental Impact Statement, Appendix A	The information provided in the FEIS to address this directive is insufficient, particularly given that this directive was emphasized by the Minister in his letter to NIRB dated September 7, 2005. Evidence has not been provided to show that options to keep the road open after mine closure have been explored with input from the agencies responsible for managing or owning the land across which the road would be constructed. The issues surrounding long term options to keep the road open after mine closure such as maintenance, liability, public access, and transfer of security deposits have also not been addressed.
<b>6.7 Shipping and Marine</b>				
a	Full explanation of potential impacts from increased shipping traffic and potential for spills, including consultations with Chesterfield Inlet and how and whether or not sections 6.2.2 and 6.2.3 of the NLCA, including the Government of Canada designation of a person who is liable for marine transportation, applies	Y	Public Involvement; Traditional Knowledge; Cumulative Effects Assessment; Final Environmental Impact Statement, Appendix A	
<b>6.8 Socio-economics</b>				
a	Comparison of Arctic Bay/ Nanisivik mine experience, and perhaps Eastmain, to assess the potential social and economics effects in the satellite community (Baker Lake) affected by the mine. This includes the effect of closure of the mine and road on the 737 airstrip at the Project site	N	Socioeconomic & Archaeology Impact Assessment, Sections 2.3 (applicability of other mining experiences, including Nanisivik) and Management Plan section 2.2.7 (all weather access road closure and alternatives)	Provide a comparison, at a minimum, of Baker Lake to the Nanisivik mine experience, using using available socioeconomic studies, and professional judgement. Discuss the effect of closure of the mine and road on the 737 airstrip.
b	Effect of the mine on the Hamlet of Baker Lake and local service providers from problems caused by alcohol and safety	Y	Socioeconomic & Archaeology Impact Assessment, Section 3.2.3.1	

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	Essentially, a better discussion of the potential negative social effects on the Baker Lake community as well as the potential effects of hiring from the Kivalliq region, including Chesterfield Inlet.	Y	Socioeconomic & Archaeology Impact Assessment, Sections 3.2.3.3 (migration), 3.2.1.3 (effects on Kivalliq businesses due to employment of workers by the project), 3.2.3.1 (effects of alcohol consumption) and 3.2.3.2 (rotational employment); Public Involvement	Provide assessment of potential effects to Chesterfield Inlet from the employment, training and business opportunities provided by Cumberland.
<b>6.9 Traditional Knowledge</b>				
	Better discussion of the use of Traditional Knowledge in reaching conclusions in the Final EIS, particularly with regard to the impact of the road on Baker Lake, and the impact of the Project on other Kivalliq communities (concerns regarding the lack of jobs for Chesterfield Inlet and Rankin Inlet, and the issue of off-loading fuel and shipping up the river from Chesterfield Inlet area).	Y	Public Involvement; Traditional Knowledge; Cumulative Effects Assessment; Socioeconomic & Archaeology Impact Assessment, Section 3.2 (rationale for preferential employment accorded to Baker Lake), 3.2.1.3 (effect on Kivalliq businesses due to employment of workers by the project) and 3.2.3.2 (potential effects of all weather access road); Socioeconomic & Archaeology Management, 2.2.7 (all weather access road closure and alternatives)	Provide a succinct discussion on the use of Traditional Knowledge in assessing the impact of off-loading fuel and shipping up the river from Chesterfield Inlet area.
<b>APPENDIX 1 - CUMBERLAND RESOURCES LTD. COMMITMENTS</b>				
<b>General</b>				
1	All new information given in Technical Meeting presentations will be included in FEIS	Y		
<b>Project Related Design</b>				
2	Provide finalized detailed mine plan and schedule to include revisions to pit designs and any changes to dike alignments	Y	FEIS, Appendix A	
3	Indicate predicted mine life of tailings dam	Y	Project Alternatives, Sections 6 and 7	
4	Provide updated closure schedule for dike breach and estimated location of breach	Y	Mine Waste & Water Management, Sections 9 and 12.5; Reclamation & Closure, Section 4.1 and 4.2	
4a	ACRES: Provide summary and include statements in the FEIS on the dike reclamation after the mine closure, how and which of the dikes will be removed or breached, and its justifications	Y	Mine Waste & Water Management, Sections 9 and 12.5; Reclamation & Closure, Section 4.1 and 4.2	
5	Include revised wording for the elimination of options	Y	Project Alternatives, Sections 3.3, 3.4, 3.5 and 3.6, Appendices A and B	

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6	Provide a statement regarding closure ditch designs	Y	Mine Waste & Water Management, Section 11.1.3; Reclamation & Closure, Section 4.6.2	
7	Discuss details of infrastructure disposal during closure	Y	Reclamation & Closure, Section 4.6	
8	Provide more detail (including location and characteristics) of explosives mixing plant, ammonium nitrate storage, and magazines, including quantities and distances to vulnerable features	Y	Hazardous Materials Management, Sections 1.2 and 4.0; Final Environmental Impact Statement, Figure 2.6	
9	Provide information regarding sewage and solids waste management. The FEIS will also provide information regarding the volume of camp sewage that will report to the Tailings Impoundment Area (TIA) in order to address why sewage inputs were not included in water quality modeling for the TIA.	Y	Mine Waste & Water Management, Section 14;	
10	Provide mineral reserve numbers	Y	Final Environmental Impact Statement, Appendix A	
11	Provide a figure with a cross-section through each pit and combine the figures on one sheet	Y	Final Environmental Impact Statement, Appendix A	
12	Include all elevations and scales on any drawings and cross-sections in FEIS	Y		
13	Provide clearly labelled and updated figure of all project components	Y	Final Environmental Impact Statement, Figure 2.6; Mine Waste & Water Management, Figure 2.1; Project Alternatives, Figure 3.1; Reclamation & Closure, Figure 2.1	
<b>Permafrost</b>				
14	Include up-to-date raw thermistor data and geothermal modelling	Y	Baseline Physical Ecosystem, Section 6 (permafrost baseline conditions) and Appendix E (thermistor data and up to date plots); Project Alternatives (thermal modeling)	
15	Include updated map showing locations of thermistors	Y	Baseline Physical Ecosystem, Figures 6.2 (location of thermistors) and 6.3 (cross sections through the permafrost); Mine Waste & Water Management (information replicated in this plan)	Figure 6.2 difficult to read
16	Include the bathymetry of project-associated lakes	Y	Baseline Physical Ecosystem, Section 5 and Figure 5.1	

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17	Annotate the permafrost cross-section with thermistors, showing depth and location of proximal thermistors	Y	Baseline Physical Ecosystem, Figures 6.2 (location of thermistors) and 6.3 (cross sections through the permafrost); Mine Waste & Water Management (information replicated in this plan)	
18	Provide statement in FEIS on monitoring Tailings freezeback	N	Mine Waste & Water Management, Section 7	Thermal modelling results of the Portage Tailings Facility predict times to freeze to depths into the talik. Discuss how these tailings freezeback predictions will be monitored.
18a	Rationale to be provided for monitoring program	N	Mine Waste & Water Management, Section 7	Provide a rationale for the above mentioned monitoring program.
<b>Groundwater</b>				
19	Provide location of groundwater monitoring wells onto maps	Y	Baseline Physical Ecosystem, Section 5 and Figures 5.5 (locations of boreholes for hydraulic conductivity testing) and 5.6;	Figure 5.5 difficult to read;
19a	Provide revised water balance calculations	Y	Mine Waste & Water Management, Section 12; Water Quality Predictions, Appendix A	
20	Provide the characterization (hydraulic conductivities) of the fault running through the tailings area, including drilling data and results and reference this into the FEIS	Y	Mine Waste & Water Management, Section 13 and Appendix E	
21	Provide hydrogeological modelling assumptions and results, including those pertaining to fault feature	Y	Mine Waste & Water Management, Section 13 and Appendix E	
22	Provide open pit stability assessment	Y	Mine Waste & Water Management, Section 2.3 and Appendix A	
23	Verify quantities and geochemistry of lake sediment and how these results are used in determining disposal of lake sediment	Y	Mine Waste & Water Management, Section 8.0 (quantities only); Static Testwork, Sections 3.2 (geochemistry) and 4.1.2 and 4.2.2 (management of sediments from geochemical perspective)	
23a	CRL to identify the locations of potential disposal sites, and provide existing data on the locations where the samples were taken	Y	Mine Waste & Water Management, Section 5 (waste rock disposal sites), Section 6 (tailings disposal sites), Section 8.1 (lake bottom sediments), and Section 14 (sewage and waste disposal);	
24	All technical data, including analytical results, figures, tables and information sources used in groundwater assessment to be referenced in FEIS	Y	Mine Waste & Water Management, Section 13 and Appendix E	

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24a	CRL to provide details of post operational groundwater flows between 2nd and 3rd Portage Lakes, including flow directions and water chemistry into the Portage and Goose Lake pits	Y	Mine Waste & Water Management, Section 13 and Appendix E	
<b>Mine Waste, Tailings Dikes and De-watering Dikes Alternatives</b>				
25	Terrain maps for project site – to be provided to parties as soon as possible	Y	Baseline Physical Ecosystem, appendices	
26	Provide clarification regarding the decision matrices for the Portage Waste Rock pile and Tailings Impoundment Area (as it relates to the possible effects on all affected fish-bearing lakes) – to be provided to parties as soon as possible	Y	Project Alternatives, Appendices A and B	
26a	The rationale for selecting the various factors, sub-indicators, relative weightings and the ranking of the various options needs to be supported with scientific evidence. The various options need to be clearly described with supporting rationale for each component of the option	Y	Project Alternatives, Appendices A and B	
27	Provide clear rationale for locations of east dike and westerly portion of Goose Island pit. Clarify location of South Camp dike.	Y	Project Alternatives, Section 3.2, Figure 3.1	
28	Provide confirmation of the capacity of the tailings impoundment area to provide for extra volume needed for ice entrapment potential, use for lake sediment disposal and future mine expansion.	Y	Mine Waste & Water Management, Section 7; Project Alternatives, Section 7.2.2	Confirm capacity of the TIA to provide for lake sediment disposal and future mine expansion.
28a	CRL will clarify the source of till for the construction of the East dike, the construction stage at which Ultramafic (UM) rock will be placed on the dikes, whether the placement of UM rock can be used to isolate the work area, and the level to which the UM will be placed in the context of the range of water levels in 2nd and 3rd Portage Lakes	N	Mine Waste & Water Management, Sections 7 and 8.2	The reports and sections indicated in the commitments table do not clarify the construction stage at which UM rock will be placed on the dikes, whether the placement of UM rock can be used to isolate the work area, and the level to which the UM will be placed in the context of the range of water levels in 2nd and 3rd Portage Lakes.
28b	Option to deepen and widen the connecting channel between 2nd to 3rd Portage Lake needs to further consider impacts to fish populations, at what time the channel will be altered (in the context of dewatering pit and tailings areas), whether this will achieve the desired result, and whether the upstream invert of the connecting channel will reduce water levels in 3rd Portage Lake as a result of construction or potential failure during operation and closure. The alternate options to discharge excess water needs to be considered	N	Baseline Aquatic Ecosystem, Section 7.9; Aquatic Ecosystem/ Fish Habitat Impact Assessment, Section 6.1.1.6	The reports and sections indicated in the commitments table do not address whether the upstream invert of the connecting channel will reduce water levels on 3rd Portage Lake as a result of construction or potential failure during operation and closure. Alternate options to discharge excess water are also not addressed.
28c	The impact of reduced flows in downstream channels will address the continued ability of fish to access upstream habitat during the period of refilling the pits, particularly during spring freshet	N	Baseline Aquatic Ecosystem, Section 7.9; Aquatic Ecosystem/ Fish Habitat Impact Assessment, Section 6.1.1.6	The Baseline Aquatic Ecosystem report section 7.9 concludes that it is highly unlikely that there are any anadromous char in this system above St. Clair Falls. The Aquatic Ecosystem Fish Habitat Impact Assessment report section 6.1.1.6 provides an impact assessment during construction, not the period of refilling the pits. These reports and sections indicated in the the commitments table do not address the directive.
28d	An analysis of the long-term stability of the East dike and tailings dams will be provided to address the risk of failure beyond closure	Y	Project Alternatives, Sections 5, 7, 4.1.5 and 5.4	
<b>Geochemical Program and Water Quality</b>				

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29	Provide a rationale for monitoring plans for groundwater and permafrost	Y	Mine Waste & Water Management, Section 16; Reclamation & Closure, Section 7	
30	Show location of reference lakes and cross reference as appropriate	Y	Baseline Aquatic Ecosystem, Figure 4.2	
30a	Show locations of reference lakes outside the mine area, where baseline data were collected, and include this figure in the FEIS	Y	Baseline Aquatic Ecosystem, Figure 4.2	
31	Include a discussion of mitigation measures for the potential effects of the fault under tailings dike (i.e. possible grouting, and/or artificial freezing) in FEIS within the context of groundwater modelling during operation and post-closure period	Y	Project Alternatives, Section 7.5.1	Discuss the extent to which the tailings dike grout curtain mitigates the effects of seepage through the fault under the tailings dike during operation and post closure.
32	All data and results from geochemistry, including water quality predictions, will be provided as soon as possible and will also be included in FEIS	Y	Kinetic Testwork; Static Testwork; Water Quality Predictions	
32a	Provide details of different rock lithologies (mineralogy, geochemistry, Acid Rock Drainage (ARD) and Metal Leaching (ML) potentials). Detailed sulphide and carbonate mineralogy, including heterogeneity in UM rocks to assess impact of capping Potentially Acid Generating (PAG) and ML rocks	N	Mine Waste & Water Management, Section 3	The report and section indicated in the commitments table do not provide detailed sulphide and carbonate mineralogy or heterogeneity in UM rocks
33	Further document sensitivity results on water quality predictions. Provide ranges of predicted concentrations	Y	Mine Waste & Water Management, Section 13 (range of TDS values)	
34	Provide the updated Whole Lake Water Quality Predictions	Y	Water Quality Predictions	
34a	Provide the updated Whole Lake Water Quality Predictions, including areas within/along created fish habitat and the degradation time to an acceptable level in the FEIS	Y	Water Quality Predictions; Aquatic Ecosystem/ Fish Habitat Impact Assessment, Section 6.2.5 (impact of effluent discharge on fish and fish habitat) and 6.2.1 (impact of dike operation on fish habitat)	
34b	Provide the updated information on "whole Lake Water Quality Predictions", which contains references and analyses, including detail modeling on the diffusion of metal leachate concentrations as water is flowing out from dikes	Y	Water Quality Predictions Appendix D	
35	Provide information regarding the volume of camp sewage that will report to the Tailings Impoundment Area (TIA) in order to address why sewage inputs were not included in water quality modeling for the TIA	Y	Mine Waste & Water Management, Section 14; Final Environmental Impact Statement, Appendix A	
36	Include information on the timing and multistage pumping of dewatering as possible mitigation measures to help address Total Suspended Solid (TSS) levels	Y	Mine Waste & Water Management, Section 16; Final Environmental Impact Statement, Appendix A	

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37	Provide long term post closure groundwater flows, pit lake stratigraphic, and chemistry analysis	Y	Mine Waste & Water Management, Section 13.2; Reclamation & Closure, Section 4.1	Provide long term post closure pit lake stratigraphy and chemistry analysis
38	Provide inflow modeling to determine groundwater inflow quantity and Total Dissolved Solids (TDS) concentration during mine operation to NRCAN	Y	Mine Waste & Water Management, Section 13	Confirm that NRCAN has received the groundwater inflow model.
39	Provide the 'Mine Site Water Quality Modelling Predictions' report, including static and kinetic test modeling assumptions/justifications	Y	Kinetic Testwork; Water Quality Predictions, Sections 3.0 and 4.0 (modeling assumptions)	
39a	Provide 'Mine Site Water Quality Modeling Predictions' information, which includes static and kinetic test modeling assumptions/justification. Detailed information on initial test results and their utilization fact to justify reduced concentrations due to channelling (hydrology), particle size distribution, climate, tailings disposition plan	Y	Water Quality Predictions, Section 3.0	
40	AVS (Acid Volatile Sulfides) and SEM (Simultaneously Extractable Metals) studies have been completed and results will be provided	Y	Final Environmental Impact Statement, Appendix A	
41	The FEIS will include a discussion as to why processed ore toxicity data is not presented.	Y	Final Environmental Impact Statement, Appendix A	
42	Clarify the operational plan for the handling and control of the PAG waste	Y	Mine Waste & Water Management, Section 5.4 and 5.6; Project Alternatives, Section 3.3	
43	Provide case histories to support PAG waste management option	Y	Project Alternatives, Sections 3.3 and 3.4, Appendices A and B	
44	Provide a materials balance showing available waste rock types (UM, IV, IF/PAG, non-PAG) versus volumes of disposal in waste rock pile and volumes needed for construction of various mine components. If waste rock is going to a waste rock pile, indicate which pile	Y	Mine Waste & Water Management, Section 5	Materials balance should compare the types of material available with the types of material required for construction of various mine components.
45	Provide maps indicating locations of samples for PAG rock determination in FEIS	Y	Baseline Physical Ecosystem, report and appendices; Static Testwork, Appendix I and Drawings 1 and 2	Drawings 1 and 2 are very difficult to impossible to read. Consider separating groups of samples onto separate drawings and ensure labels are legible.
46	Include the schedule and process by which attenuation pond water from 2nd Portage Lake area would be moved (in year 5) to Goose pit	Y	Mine Waste & Water Management, Section 7	
47	Identify the revised size of Portage Waste rock pile considering that portion of waste rock being moved to Goose pit and confirm that fishbearing waters will not be impacted	Y	Mine Waste & Water Management, Sections 5.5 and 5.7	Discuss potential impact to fish bearing waters.
48	Provide regulatory criteria used to identify PAG rock	Y	Kinetic Testwork, Section 3.3; Static Testwork, Section 2.2	
49	Clarify the circumstances under which quartzite will be used as aggregate, including options for mitigating any impacts from the inclusion of this PAG material	Y	Final Environmental Impact Statement, Executive Summary Table "Summary of Geochemistry Considerations", and Appendix A	
50	Provide information on how the freezing of the tailings impoundment takes into account the groundwater inflow	Y	Mine Waste & Water Management, Section 13.2	



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51	Provide case histories on exothermic reactions and their effect on tailings freezing	Y	Project Alternatives, Appendix A	
51a	Provide sulphide mineral content of tailings	Y	Static Testwork, Section 3.5	
52	Provide cyanide storage and transport details	Y	Hazardous Materials Management, Sections 1.2 and 2.2.1 and Appendix A	
53	Provide more detail on adaptive management and monitoring in relation to Vault waste rock pile	N	Reclamation & Closure, Section 4.4	Provide details of an adaptive management plan should water quality monitoring of the waste rock drainage not confirm predictions.
53a	Provide statement that the Vault waste rock disposal area is not expected to require a capping layer above the waste rock after mine closure, due to its current evaluation of favourable rock chemistry. However, monitoring will be carried out in the Vault waste rock piles throughout the mine operation	Y	Project Alternatives, Section 3.5.2	
54	Include information / sensitivity analysis regarding how extreme events and above normal lake levels could impact the GoldSim water balance graphs, to ensure that the design and impact assessment takes extreme events into consideration	N	Mine Waste & Water Management, Section 10.2.2 (design criteria)	The Mine Waste and Water Management report section 10.2.2 provides water management infrastructure design criteria for extreme events but does not explain how extreme events were incorporated into the GoldSim water balance model or how extreme events impact the water balance assessment.
55	CRL to provide the reference document showing baseline water quality in the various lakes, including location, time and sampling of the water for chemical testing	Y	Baseline Aquatic Ecosystem, Table 5.1	Hardcopy of Table 5.1 is not completely legible, although electronic version is complete.
56	Additional geothermal modelling to be carried out and provided to parties as soon as possible. General agreements include:	Y	Mine Waste & Water Management, Section 6.6; Project Alternatives, Section 3.7	
56a	Global warming attenuates to zero change at 100 years	Y	Mine Waste & Water Management, Section 6.6; Project Alternatives, Section 3.7	
56b	The 4.4 degrees C variation between MAAT and MAGT is unrealistic to model	Y	Mine Waste & Water Management, Section 6.6; Project Alternatives, Section 3.7	
56c	Will use variation in the magnitude of predicted climate change within the 100 year period so as to provide a broader range of geothermal effects. The range consider accepted climate change predictions.	Y	Mine Waste & Water Management, Section 6.6; Project Alternatives, Section 3.7	
<b>Wildlife and Terrestrial</b>				
57	Update Ecological Land Classification surveys to reflect the concerns of interveners, particularly with respect to ground-truthing	Y	Baseline terrestrial pg 3-6	
58	Update wildlife Cumulative Effects Assessment including expanding the Caribou Regional Study Area (RSA) to include winter ranges in northern Manitoba and Saskatchewan	Y	CEA pg 10-1	
59	Describe environmental health monitoring, including methodology for collecting baseline data for screening level risk assessment for terrestrial animals and country foods	Y	Terrestrial Ecosystem Management Sec 4.1,4; Sec 4.3.2.2; Appendix B - Screening Level Risk Assessment	
60	Update wildlife monitoring plan	Y	Terrestrial Ecosystem management Sec 4	
61	Provide rationale for not doing waterbird surveys along Tehek-Quoich-Lunan rivers	Y	Terrestrial baseline pg 5-9	
62	Clearly describe methods used to determine high, moderate or low suitability habitat for each wildlife VEC	Y	Terrestrial EIA pg 2-11	

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63	Assess impacts of mine-related disturbance on wildlife and the effect on habitat effectiveness	Y	Terrestrial EIA Sec 4 to 9	
64	Provide supporting documentation related to impact assessment methodology	Y	Terrestrial EIA	
65	Update Local Study Area (LSA) and RSA boundaries, including:	Y	Baseline terrestrial pg 2-4	
65a	The change to RSA to reflect the new access road	Y	Baseline terrestrial pg 2-4	
65b	Expanded LSA around Vault area encompassing both the original LSA areas	Y	Baseline terrestrial pg 2-4	
65c	Defined LSA for the all-weather road	Y	Baseline terrestrial pg 2-4	
66	Assess wildlife and terrestrial baseline conditions along access road and conduct overall impact assessment	Y	Baseline terrestrial	Provide results from late October 2005 aerial survey of the RSA including all-weather road area. Show map of terrain and soils in the RSA and LSAs. The overall Terrestrial Ecosystem Impact Assessment lacks detail, particularly for impacts related to all weather road and quarrying activities.
67	Assess impact of quarry and borrow sites on wildlife and terrestrial VECs	N	FEIS Appendix F	FEIS Appendix F provides the road impact matrices (including borrow pit and quarries) for all project VECs, including wildlife and terrestrial VECs, that were submitted during the DEIS Conformity Review. Impact matrices are a useful FEIS summary tool, but cannot be relied upon for the review of an FEIS which requires detailed descriptions of the impacts and explanations of their assessment. Information addressing this directive should be contained within the Terrestrial Ecosystem Impact Assessment document, however this document lacks detail particularly for impacts to VECs from road and quarrying activities.
68	Provide mitigation measures and protocols related to problem wildlife	Y		
69	Provide the aerial wildlife sampling survey methodologies as soon as possible and reference in the FEIS	Y	Baseline terrestrial pg 5-9	
<b>Aquatic</b>				
70	Make appropriate comparisons to drinking water guidelines in tables referring to water quality	Y	Physical EIA, Tbl 5.3, 5.4	
71	Explicitly describe frequency of effluent toxicity testing under MMER	Y	MMER pg 3-2, 3-3	
72	Provide discussion relating to the concern of introduction of TSS into 3rd Portage Lake from 2nd Portage Lake during dewatering. If necessary, also provide the mitigation plans	Y	Aquatic EIA pg 6-8	
73	Clarify the methodology and rationale for habitat mapping and quantification and compare to other mines e.g. Ekati and Snap Lake	Y	NNLP Sec. 3	
73a	The relative advantages and disadvantages of the fish habitat model will be compared to other Northern mining projects models such as EKATI, Diavik and Snap Lake. The Proponent will incorporate indicators of productivity (i.e. CPUE), where appropriate, in support of the fish habitat model. The fish habitat model will incorporate species- and life-stage specific differences for all fish species in the project-affecte waterbodies into the fish habitat model. Specifically, the model will account for habitat requirements of rare species such as burbot, stickleback and sculpin	Y	NNLP pg 3-6, 3-7	

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74	Provide results of all fish studies conducted along the all-weather road route, including the assessment of possible increased fishing pressure on the lakes near the road in FEIS	Y	Habitat and fisheries assessment - allweather road; Aquatic ecosystem EIA sec 6.3.6	
74a	Provide results of all fish studies (using appropriate sampling times and techniques) conducted along the all-weather road route, including the assessment of possible increase fishing pressure on the lakes near the road	Y	Habitat and fisheries assessment - allweather road; Aquatic ecosystem EIA sec 6.3.6	
75	Provide account for residual habitat loss in the following areas:			
75a	in smaller areas like Phaser Lake	Y	NNLP Sec 4.2.7 pg 4-7	
75b	extended airstrip	Y	NNLP pg 4-6, 4-7	
75c	small fish bearing ponds (if any)	Y	NNLP pg 1-2	
75d-i	Baker Lake barge landing facility	Y	Fish Habitat EIA pg 6-52	
	All fish habitat, regardless of relative value, will be included in the calculations of losses and gains of fish habitat. Improving access to Third Portage Lake will further consider implications on existing fish populations in those lakes. Compensation associated with the proposed TIA, if justified, will be presented separately. A contingency plan will be developed for fish habitat enhancements due to failure and/or delays in the FEIS. DFO will provide Cumberland with DFO perspective on what has worked/not worked at other mines in the NWT (e.g., Ekati, Diavik) to "avoid reinvention of the wheel"	Y	NNLP Tbl 4.1	
76	Provide more information based on recent literature research regarding intra-species habitat utilization of project lakes	Y	NNLP Sec 2.1; Baseline Aquatic Sec 7	
77	Provide thresholds and explanation for the level of change in sediment chemistry that would justify the collection of benthos to monitor contaminant	Y	App. A pg A-36	
78	Provide literature review and discussion related to water column oxygen concentration during winter and indicate how late winter sampling will be conducted in 2006	N	Baseline Aquatic Ecosystem, Section 5.1 and Figures 5.1a to 5.1f	Provide indication of intention for and how late winter sampling will be conducted for 2006
79	Provide further detail on water treatment technologies (AMEC)	N	Final Environmental Impact Statement, Appendix A	Provide clarification for what is meant by "separate dedicated treatment for metals in a water treatment system". Specify proposed technology(s) under consideration.
80	Provide more background information on the potential change in trophic level from nutrient discharge in effluent	Y	Aquatic ecosystem EIA pg 6-43	
81	Identify particular areas along shoreline of 3rd Portage Lake that might be at risk from slumping during de-watering of 2nd Portage Lake	Y	Aquatic ecosystem EIA pg 6-13	
81a	Identify particular areas along shoreline of 3rd Portage Lake that might be at risk from slumping during dewatering of 2nd Portage Lake to improve impact prediction and mitigation measures during higher than anticipated years. Impact of increased flows on downstream areas of Second Portage Lake to be addressed	Y	Aquatic ecosystem EIA pg 6-13;	clarify maximum increased flows downstream of project lakes and the impact of the increased flows on downstream areas.
82	Account for habitat loss in Phaser Lake as a result of 1m drop in water level	Y	NNLP Sec 4.2.5; It is noted that compensation is not planned for loss of habitat.	
83	Update maps to reflect the one intake pipe	Y		

NO.	NIRB PHC DECISION (JULY 14, 2005)	Conformity Y/N	Location (Document and Section)	Comment
83a	The Proponent will identify the location for the freshwater intake pipe to service the mine throughout the operations, and will ensure the location avoids sensitive fish habitat	Y	FEIS Fig 2.6	
84	Cumberland will double check if lake bed sediments will be used in construction of the core of the dikes and if so, this will be stated in FEIS	Y	Mine waste and water management pg 8-1	
85	Ensure that the blast management plan in the FEIS accounts for DFO addendum relating to blast design during periods when water bodies are ice covered	Y	Project Alternatives technical memorandum	
85a	A Blast Design Report will be submitted, taking into account the DFO addendum relating to blast design during frozen conditions	Y	Project Alternatives technical memorandum	
86	Committed to make sure that intake pipe is located away from any sensitive habitat	Y	various	
87	The ultimate fate of salvaged fish from project-affected waterbodies will be presented and incorporate the DFO Fish-Out Protocol adjusted for the project and the wishes of Baker Lake residents	Y	Appendix page A-45	
88	The results for all past aquatic studies, including sampling methodology, time, dates, and locations to allow the determination of additional sampling of lower trophic levels required for 2005 and beyond that is required to provide an adequate understanding of the natural variability in support of monitoring of project-related impacts during construction, operation and closure	Y		
89	The results from the 2004 and 2005 aquatic baseline sampling program will be incorporated into the integrated aquatic baseline data. Fish passage/movement in project-affected watercourses, the identification of limited or life-stage specific habitat types (spawning) and the confirmation of other fish species (i.e. Arctic grayling, burbot) will be further sampled using various sampling techniques (minnow traps, seines, etc) conducted at appropriate times of the year, in support of impact prediction and the No-Net-Loss plan	Y	Baseline Aquatic ecosystem	
90	CRL will clarify that char do occur upstream of the falls	Y	Baseline Aquatic ecosystem Sec 7.9	
91	Fisheries surveys for Phaser Lake, NF-1 and the associated connecting channels will be conducted to determine species presence, abundance and habitat function. Project-affected watercourses in the barge landing facility, with the potential to support fisheries, will be sampled. All surveys will be conducted at appropriate times of the year to take advantage of any potential spring-spawning fish or migration of fish during spring freshet	Y	Baseline Aquatic ecosystem pg 7-3; Sec 7.10;	Provide information on fish sampling surveys for watercourses affected by the barge landing facility.
<b>Socioeconomics</b>				
92	Southern point of hire will be identified	Y	Socioeconomic & Archaeology Impact Assessment, Section 3.2.1, footnote 1; Final Environmental Impact Statement, Appendix A	

NO.	NIRB PHC DECISION (JULY 14, 2005)	Conformity Y/N	Location (Document and Section)	Comment
93	Workforce requirements relative to regional human resource inventory will be incorporated into assessment of employment effects	N	Socioeconomic & Archaeology Impact Assessment, Sections 3.2.1.2 (human resource inventory and employment effects) and 3.2.1.3 (effects on Kivalliq businesses due to employment of workers by the project); Final Environmental Impact Statement, Appendix A	Provide all background information related to human resources inventory work that was incorporated into the employment effects assessment, including any non-confidential results from the joint effort between Cumberland and the KIA.
94	Migration effects will be re-examined	Y	Socioeconomic & Archaeology Impact Assessment, Section 3.2.3.3	
95	The Nanisivik experience will be reviewed and referenced	N	Socioeconomic & Archaeology Impact Assessment, Section 2.3	Provide a comparison, at a minimum, of Baker Lake to the Nanisivik mine experience using available socioeconomic studies and professional judgement.
96	To the extent possible, progress on the IIBA will be integrated into socioeconomic mitigation section	Y	Socioeconomic & Archaeology Management, all sections	
97	Criteria for decommissioning the road and the approach to consultations on the road closure decision will be included in the FEIS	Y	Final Environmental Impact Statement, Appendix A; Socioeconomic & Archaeology Management, Section 2.2.7	
98	Socioeconomic impact assessment will include recent project changes	Y	Socioeconomic & Archaeology Impact Assessment; Socioeconomic & Archaeology Management	
99	Potential effect of project on persons already employed in the Kivalliq region will be elaborated on	Y	Socioeconomic & Archaeology Impact Assessment, Sections 3.2.1.2 (human resource inventory and employment effects) and 3.2.1.3 (effects on Kivalliq businesses due to employment of workers by the project)	
100	Clarification on treatment of youth as a VSEC will provided in the FEIS	Y	Socioeconomic & Archaeology Impact Assessment, Section 2.2.2, footnote 1	
101	The FEIS will provide additional documentation on consultation results	Y	Public Involvement; Traditional Knowledge	
<b>Air and Noise Quality</b>				
102	Provide update on installations of two multiple particulate samplers to measure particulate concentrations at the project site	Y	Air Quality & Noise Management, Section 3.4	
103	Provide detailed reporting protocol for air quality monitoring and management program	Y	Air Quality & Noise Management, Section 3.4.3	
104	Address conceptually the potential for dust from tailings resulting from extreme wind	Y	Air Quality Impact Assessment, Section 5.3.2	
105	Indicate commitment to performing at least 2 days of sound level monitoring per year	N	Air Quality & Noise Management, Section 2.4	FEIS commits to two - 24 hour measurements during the first year of development and every second year thereafter. Discuss why the monitoring commitment has been reduced.

NO.	NIRB PHC DECISION (JULY 14, 2005)	Conformity Y/N	Location (Document and Section)	Comment
106	Detail potential mitigation measures that may need to be implemented with regards to results from ambient disbursement noise monitoring at North Camp	Y	Noise Impact Assessment, Section 4	
<b>Additional Requests</b>				
1	Provide topographic data on Northwest Arm of the Third Portage Lake	Y	Final Environmental Impact Statement, Appendix A	