

## BONITO CAPITAL CORP.

March 3, 2015

Phyllis Beaulieu  
Licensing Administrator  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU, X0A 1J0

**Re: 2BM-ULU0914 – Bonito Capital Corp. (“BCC”) – Ulu Gold Project (“Ulu”)– Water Licence  
Renewal Application – 2014 Cost Estimate Response to AANDC and KIA**

Dear Phyllis Beaulieu:

BCC is writing to provide the following responses to the AANDC submission of February 12, 2015 (see Table 2 below) and the KIA cover letter submission on February 27, 2015 (see Table 2 below) in regards to the cost estimate submitted by BCC on December 31, 2014 as part of the 2BM-ULU0914 Water Licence Renewal Application (submitted on May 30, 2014). For the reasons set out in this letter, BCC's estimate should be preferred by the Board. We have presented our analysis in tabular form, for ease of reference.

BCC would like to clarify that in the Basis of Costing submitted with the cost estimate it stated that access to Ulu would be via a winter road from Lupin. This sentence was left in by error, originally BCC assumed this would be required, but the contractor that conducted the site visit advised that an ice road would not be required and that everything would be removed from site via Hercules. The cost estimate submitted is therefore based on Hercules transportation to and from site with a total of three backhauls.

It should be noted that in 2011 AANDC submitted a cost estimate to the NWB in the amount of \$3,363,140. The 2014 AANDC cost estimate is now \$7,523,612, based on the same data and assuming that there has been no ongoing reclamation work at site in the intervening period. In fact the site is now in better condition than in 2011. BCC has completed a significant amount of cleanup including the removal of hazardous waste, non-hazardous waste and barrels from site. We cannot see the justification nor rational how the AANDC estimate can somehow increase by over 100% in a period of deflation with no hard data, engineering studies or site visits to explain the differences. As stated the BCC estimate is based on site visits by engineers and contractors, engineering studies, unit rates and quantities and when compared to site reclamation costs for projects that have a similar or larger footprint of disturbance the BCC estimate is very consistent with these recent estimates.

As an example, Sabina Gold and Silver Corp. were issued a renewed water licence on February 19, 2015 for the Goose Lake, Back River Project (2BE-GOO1520) with no security requirements. Goose Lake did submit a reclamation cost estimate with their application in the amount of \$1,566,233. The Goose Lake

project is a significantly larger project than Ulu with nearly 4 times the number of buildings, a larger fleet (in size and quantity) of equipment onsite, as well as bigger fuel storage and total waste. Furthermore, Goose Lake is a much more remote site and will require an ice strip and a barge for removal of large pieces equipment on closure. BCC notes that the KIA holds security in the amount of \$2.2 million dollars which includes both the Goose Lake and the George Lake projects. The George Lake site submitted an application to renew their water licence (2BE-GEO1015) on February 11, 2015. A reclamation cost estimate was included with their application in the amount of \$500,532. Currently there is no security held with the NWB in regards to this licence, but as noted above the KIA holds security for the George Lake project which includes the Goose Lake project. The George Lake project site is closer in size in terms of land disturbance and camp and associated fixtures to the Ulu site.

As stated above, the Goose Lake project is significantly larger than Ulu with a greater area of land disturbance and since AANDC and the KIA did not object, and therefore agree, to both the cost estimate of \$1.56mm for Goose Lake and the George estimate of \$500,000 this would clearly indicate that the cost estimate for the Ulu Project of \$1.64mm is reasonable and accurate. The contingency for Goose Lake and George Lake projects is 10% and Bonito have included a 15% contingency, also indicating that the amount is well within reason. Bonito is confident its estimate is accurate, precautionary and reasonable when compared to other projects of similar size and disturbance in the North. Bonito's estimate is based on site visits, contractor quotes and when benchmarked against recently approved water licenses (including Goose Lake above) it falls well with the norm in terms of costs and schedules.

Please see the pictures below which shows the Goose Lake, George Lake and Ulu project sites and provides a direct comparison to all three projects.

Goose Lake Site (date of pictures unknown):





George Lake Site (Photos from 2013):







Ulu Site (Photos 2013 and 2014):







In regards to the KIA submission cover letter dated February 27, 2015, BCC has included a table below (Table 2) to address their submission. Within the cover letter the KIA stated, “The BGC report (Lukas Arenson, P.Eng., Feb.26, 2015) is included with this submission.” BCC has not yet received this document and BCC is requesting that the NWB allow BCC to respond to this document once it has been received.

BCC would however, first like to address a couple of comments within the KIA cover letter that we believe are, respectively, incorrect.

- The KIA stated that Bonito is currently out of compliance with their Land Use Licence (KTL311C013), in particular with the requirement to provide an independent updated security assessment to KIA. A term of the Land Use Licence does state that *“The Licensee will pay all costs for the conduct of a comprehensive reclamation cost estimate of the Ulu site by a third party engineering firm. This work will be done in collaboration with Kitikmeot Inuit Association staff person(s) and be completed before December 31, 2014. The reclamation cost estimate should include the global reclamation amount and the cost of land reclamation. KIA considers land reclamation include all work that addresses closure and reclamation of facilities and areas not on or within water. Water is defined as a lake, stream, river etc. The KIA and the company must mutually agree, being reasonable, on the engineering firm to conduct the estimate.”* There is no term of the Land Use Licence which states that security estimates to NWB must be jointly submitted.
- In August of 2014, BCC wrote to the KIA and indicated a suitable qualified firm completed a site visit at the same time they were conducting a site visit at the Lupin site and that BCC would submit the estimate by the deadline of December 31, 2014. BCC asked if the KIA

required any further information and we did not receive any further contact until February 2, 2015.

- On February 2, 2015, the KIA requested to meet with BCC while we were in Kugluktuk. Included in the request to meet it was stated, *“As you know the process that KIA outlined as a license term for developing the reclamation security estimate in the land use license for the Ulu project was not followed. This, in part, is a cause for our confusion and concern regarding the estimate. As a result, we would like to extend to Elgin/Mandalay a 3 month window to rectify this with KIA and in the interim, we will keep the Ulu license in good standing.”* BCC intends to complete this work during the 3 month window and as such, is not out of compliance.
- During our meeting in Kugluktuk, BCC confirmed that they would work with the KIA and their engineering consultant to break out the land and water for the cost estimate. BCC is still prepared and ready to work with the KIA to complete this task within the three month timeframe. BCC was and still is under the impression that we will be working with the KIA, BGC and Delta to break out the land and water in regards to the Ulu project and will make themselves available to complete the this task.

Finally BCC’s estimate was converted into RECLAIM. This is a common practice and has been accepted by the Board on other occasions.

Below are Tables 1 and Table 2 addressing the AANDC and KIA submissions in further detail.

**Table 1 – BCC Responses to AANDC Submission of February 12, 2015**

Although BCC cannot determine what the basis of the AANDC estimate is we have provided the following additional background to the BCC estimate submitted as a general response to the points raised in the AANDC estimate.

	AANDC Submission	BCC Response
	Cover Letter	Cover Letter
1	<p>Basis of review: AANDC did not attend Ulu Project in order to prepare this estimate.</p> <p>“The review was based on information provided in the following documents:</p> <ul style="list-style-type: none"> <li>• Reclaim Estimate Basis of Costing (BCC, 2014)</li> <li>• Interim Closure and Restoration Plan (March 2013)</li> <li>• Brodie Consulting Ltd. Reclamation Cost Review (December 28, 2011)</li> <li>• Mine Site Reclamation Policy for Nunavut (INAC, 2002)</li> <li>• Mine Site Reclamation Guidelines</li> </ul>	<p>The cost estimate provided by BCC was completed by an independent third party who attended site, used actual vendor quotes and includes actual quantities at site. The BCC estimate is based upon engineering data and scientific study completed as part of the final closure process and this data formed the basis of the reclamation estimates. In contrast, AANDC’s suggested reclamation estimate of \$7.5 M is not supported by any site visit, unit quantities or hard data and is significantly outside the estimates for other similar projects.</p>

	<p>for the Northwest Territories (INAC, 2007)</p> <ul style="list-style-type: none"> <li>RECLAIM model, version 7 (Brodie Consulting Ltd., March 26, 2014)”</li> </ul>	
2	<p>The 2014 estimate does not appear to be a significant improvement from the estimate filed with the renewal application. There remain a number of items that are deficient and or for which estimated costs do not include adequate funds for completion of the work.</p>	<p>There have been no changes at site, with the exception that the site is more organized with a significant amount of waste and barrels removed from site and therefore there is no need for a significant change in the cost estimate.</p>
3	<p>There are material uncertainties within the 2014 estimate including:</p> <ul style="list-style-type: none"> <li>The scope of work in the Interim Closure and Restoration Plan (ICRP) is inconsistent with the scope of work in the 2014 estimate. For instance, some of the items identified in the ICRP have been left off or were under-scoped in the reclamation estimate. The reclamation estimate should be based on the ICRP, and the scope of work should be consistent between the two documents. If there are changes to the scope of work, the ICRP needs to be updated to reflect such changes.</li> </ul>	<p>The ICRP does outline the components of the mine facility and associated wastes and how they are managed at closure. If there are any changes required to the ICRP BCC will make those changes and submit a revised ICRP with the Annual Report. The estimate submitted by BCC follows the current ICRP including the Basis of Costing.</p>
4	<p>There are material uncertainties within the 2014 estimate including:</p> <ul style="list-style-type: none"> <li>There is uncertainty on where the unit rates have come from. The unit rates seem to be based on vendor quotes with no back up. The SENES estimate adopted many of the unit rates since they are based on contractor's quotes. However, BCC needs to provide detailed information to support the quotes so it is clear what is accounted for and what</li> </ul>	<p>The cost estimate provided by BCC was completed by an independent third party who attended site, used actual vendor quotes and includes actual quantities at site. The BCC estimate is based upon engineering data and scientific study completed as part of the final closure process and this data formed the basis of the reclamation estimates. In contrast, AANDC's suggested reclamation estimate of \$7.5 M is not supported by any site visit, unit quantities or hard data. The ICRP, Basis of Costing, the cost estimate and our responses within this document have</p>

	assumptions were made.	provided all the necessary information required.
5	<p>Additionally, the current ICRP and RECLAIM estimate provided by BCC do not meet the recommendations outlined in the AANDC Water Resources letter dated December 30, 2011 or the NWB technical Review Memorandum of August 22, 2014. The documents provided do not:</p> <ul style="list-style-type: none"> <li>• Provide a detailed Abandonment and Restoration (A&amp;R) plan which outlines how all components of the mine facility and associated wastes are to be managed (e.g., the waste rock and issues with PAG rock).</li> <li>• The cost estimate is not sufficiently detailed to allow for a thorough third party review. There are no details on methodologies, cost or quantity assumptions.</li> <li>• The cost estimate and A&amp;R plan have not been signed by a licenced Professional Engineer.</li> </ul>	<p>The ICRP does outline the components of the mine facility and associated wastes and how they are managed at closure. The cost estimate with the Basis for Costing does provide the details, costs and quantity assumptions. Further clarification is provided in this document where requested. There is no requirement for the cost estimate of the ICRP to be signed by a licensed Professional Engineer.</p>
6	<p>The BCC 2014 estimate and Interim Closure and Reclamation Plan documents are not significant improvements over the documentation filed earlier by BCC as part of an Elgin Mining Inc. water licence renewal application. We are somewhat uncertain as to what reclamation work is to be undertaken as there appears to be some difference between the remedial scope of work outlined in the Interim Abandonment and Closure Plan (IACP) as compared to the scope of work included in the RECLAIM estimate.</p>	<p>There have been no changes at site, with the exception that the site is more organized with a significant amount of waste and barrels removed from site and therefore there is no need for the ICRP and the cost estimate to change significantly.</p>
7	<p>Furthermore we don't know where many of the BCC unit rates have come from, as most of the rates are simply based upon vendor quotes with no backup. Although we may not concur with some of the unit rate data provided by BCC, where the rates were in general agreement with the</p>	<p>As stated in the Basis of Costing provided by BCC with the cost estimate, a detailed review was undertaken at site by a Contractor experienced in completing reclamation work in Nunavut. The contractor (Delta/Carter) spent several days on site to examine equipment, review the</p>



	RECLAIM model rates (2011 and 2014), we have adopted many of these rates in our review of the estimate. Where we have used different rates they are based on current unit rates for similar work based on our northern experience.	status of the site and to review quantities, potential haul distances, availability to relocate suitable material underground and amount of material that would potentially have to be hauled offsite.  Where applicable, unit rates were provided.
8	For clarity, while the reviewers have extensive relevant northern experience, they have not been to site and opinions expressed are based solely on the information provided by AANDC.  Unit rates represent a significant variable in all cost estimates, particularly in the North. Although we may not concur with some of the unit rate data, given they were based upon contractor quotations provided to BCC, we have adopted many of these rates in our review of the estimate. Where we have used different rates they are based on current unit rates for similar work based on our northern experience.	As stated in the Basis of Costing provided by BCC with the cost estimate, a detailed review was undertaken at site by a Contractor experienced in completing reclamation work in Nunavut. The contractor (Delta/Carter) spent several days on site to examine equipment, review the status of the site and to review quantities, potential haul distances, availability to relocate suitable material underground and amount of material that would potentially have to be hauled offsite.
	<b>Direct Costs Underground Mine</b>	<b>Direct Costs Underground Mine</b>
9	BCC used a unit rate of \$2,350/m <sup>3</sup> for the construction of a mine seal on the vent raise which is low compared to the RECLAIM rate of \$2,800 for this work. Notwithstanding the inspection work completed by Delta/Carter on behalf of BCC it is our experience that the higher unit rate should be used for this work given the remoteness of the site and the challenges in constructing these mine seals.	The \$2,350 rate provided was by contractor based on actual site conditions. We see no reason why a higher rate should be used.
10	It has been assumed that the BCC estimate has made an allowance of \$5,000 for the removal of the 400 m <sup>3</sup> of material currently in place at the portal entrance. We concur with this rate however it should be confirmed that the cost item was to cover this work.	The \$5,000 includes the removal of 400m <sup>3</sup> material and replacement later as backfill at a blended rate of \$6.25/m <sup>3</sup> as provided by the contractor.

11	The BCC estimate has not accounted for the backfilling of the portal. Using the RECLAIM rate of \$14.30/m <sup>3</sup> and an estimated volume of 800 m <sup>3</sup> the cost to backfill the portal would be \$11,440.	See above.
12	In order to gain access to the underground areas it has been assumed that an ice plug will need to be removed. The BCC estimate provides a lump sum rate of \$200,000 for the removal of the ice plug, however, no backup has been provided. From the Brodie 2011 RECLAIM estimate, it has been assumed this work would be valued at just under \$15,000 however this value is not consistent with the level of effort one would assume based on the BCC Interim Abandonment and Closure Plan. From the IACP it has been assumed that the depth of permafrost is 440 m and, in order to operate underground, both the portal and vent raise would need to be unplugged. Given the amount of work required to remove the ice plug, it is our opinion that the level of effort included in both the Brodie 2011 estimate and the BCC estimate may be under-scoped. However, for the purposes of this review, we have assigned \$200,000 to this item.	SENES did note that BCC rates are higher than what they would use and that the BCC rates are based on a site visit and actual costs. It is an interesting observation that when BCC rates are higher SENES uses BCC quotes but when BCC's are lower they use their own.
13	BCC made no allowance for engineering design and inspection costs.	AANDC state that there would be engineering design required to re-open the portal. There would be no need for an engineering design report to remove an ice plug and place waste underground, this is standard mining practice.
14	The BCC estimate does not include any costs for the upgrading of the vent raise collar which will require attention further to the inspector's report. An allowance of \$50,000 has been included in our estimate of the work.	We do not plan to upgrade the vent raise collar as there is no requirement for the vent raise. The estimate allows for a vent fan and a vent tube to be brought to site for ventilation purposes.

	Direct Costs Rock Pile	Direct Costs Rock Pile
15	BCC indicates stabilizing of slopes will be done, however from the descriptions provided in the RECLAIM estimate, it is unclear if they are referring to the grading of the ore pad and camp pad slopes. From the quantities of material noted, 800 and 400 m <sup>3</sup> respectively, it can be assumed that BCC are referring to the ore and camp pad slopes. The unit rate for the regrading of these areas is considerably higher than the Brodie 2011 cost estimate, however the rates of \$13.25 and \$12.00 /m <sup>3</sup> are based on their inspection of the work areas and, as such, would be project specific costs. We have used the BCC rates for this cost item.	For work on the rock pile SENES did note that BCC rates are higher than what they would use and that the BCC rates are based on a site visit and actual costs. It is an interesting observation that when BCC rates are higher SENES uses BCC quotes but when BCC's are lower they use their own.
16	BCC indicates that 400 m <sup>3</sup> of fill material will be required for a toe buttress, however from the description of the reclamation work in the IACP, it is not clear what work is being referenced. We have not considered this cost item in our estimate.	This is based on the ICRP and from the visit to site by the contractor.
17	The BCC estimate does not account for the final grading of the waste rock within the waste pad area. Of the 42,000 m <sup>3</sup> of waste rock (volume from Brodie 2011 estimate) BCC has assumed that only 12,000 m <sup>3</sup> of waste rock would be relocated underground as it has been considered potential acid generating (PAG) rock. In the absence of any additional information, we would recommend using the assumptions included in the Brodie 2011 estimate which assumed 21,000 m <sup>3</sup> of waste rock would be placed underground. This would leave some 21,000 m <sup>3</sup> of waste rock to be graded out within the waste pad area. The unit rate used for	The AANDC estimate of 42,000m <sup>3</sup> is not based on a site visit and does not reflect the work completed to date. The historical work completed showed that there is very little potential for PAG rock and there is no evidence of PAG to date. We have however allowed that 25% of this waste would be placed underground which is precautionary and conservative.



	the re-grading work is \$0.77/m <sup>3</sup> .	
18	Further to the comment above, the unit rate and quantity of waste rock to be placed underground should also be updated. From the 2011 RECLAIM model for similar work a rate of \$9.95/m <sup>3</sup> should be applied to a volume of 21,000 m <sup>3</sup> .	The BCC estimate of 12,000m <sup>3</sup> includes 25% of the total waste or over 10,000m <sup>3</sup> with the remainder being all of the ore. Rates were supplied by the contractor.
19	The relocation of 1,222 m <sup>3</sup> of ore from the waste pad to the underground is also missing from the BCC estimate. Given the nature of the work, the same unit rate used for the waste rock going underground would be applied for this work task.	See above.
20	It is not clear if BCC has made any provisions for geotechnical inspection of the waste rock and ore material into the underground. For the purposes of the SENES estimate, we have assumed the 20 days included in the Brodie 2011 estimate at a rate of \$1000 per day for the inspection work.	We see no need for a geotechnical investigation to place rock underground. Placement is based on the reports of ground rock stability from the ramp development which was meshed and screened.
21	BCC has made no allowance for vegetation yet the water licence requires vegetation. As a minimum, we would suggest selected areas be vegetated. We would allow for 5 ha at \$5000/ha.	In regards to revegetation, as per the terms of the license and as clearly stated in our ICRP, and which conforms to the terms of the licence, is that to promote revegetation, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography, which has been included in the estimate.
22	The IACP makes mention of completing additional testing of the waste rock however the BCC RECLAIM estimate does not have any costs included for the additional testing prescribed for the waste rock in the water licence renewal review comments. We believe an allowance of \$75,000 is reasonable to complete the required testing and reporting.	BCC agrees that is a reasonable cost and will agree to include this in their final number.

23	<p>BCC has made no allowance for dewatering ponds or treating pond water if required.</p> <p>This cost is highly uncertain as no treatment may be necessary but labour will be required to dewater the ponds. For planning we have allowed for \$50,000 to manage water discharges at closure.</p>	Dewatering is included in the manpower unit rates.
	<b>Direct Costs Buildings and Equipment</b>	<b>Direct Costs Buildings and Equipment</b>
24	It was assumed by BCC that their estimates are comprehensive and include full remediation and removal of the buildings and associated tank farms.	This statement is correct.
25	No allowance has been made for the decommissioning and decontamination of the existing equipment on site. For the purposes of the SENES estimate we have assumed \$40,000 as used in the Brodie 2011 estimate. An additional \$70,000 would be required to transfer the equipment off-site for disposal as per the IACP.	The buildings referred to at site are aluminum frame buildings with nylon covers, and decontamination is not required. It should also be stated that camp, kitchen and the workshop are "Sprung Structure" which can be dismantled and folded and banded for transport by Hercules aircraft. The estimate therefore does include removal of the equipment on backhauls of the Hercules flights, and the estimate allowance is for 3 Hercules flights which is more than sufficient for all backhauls. Therefore the SENES 25% contingency is not deemed appropriate. They do not take up significant volume for shipment.
26	The BCC estimate does not provide a breakdown of the costs for the dismantling of the camp and associated infrastructure on site. While the costs appear reasonable for the dismantling and off-site removal of the camp, kitchen and trailers (10) it is unclear what is meant by the boneyard or what is in the bone yard. For the purposes of the SENES estimate and given these uncertainties, we have added 25% to the BCC costs. It is recommended that	See above.

	BCC provide a breakdown of the type and quantity of waste present in the boneyard.	
27	<p>The BCC estimate has made allowances for the decommissioning and disposal of two tank farms as noted in the IACP document, however it is unclear as to how the rates provided were derived. It would appear that the disposal of the tanks within the tank farms has not been included in the BCC RECLAIM estimate. From the Brodie 2011 estimate, there is approximately 1500 m<sup>2</sup> of steel tank to be dismantled and from the IACP the scrap steel is to be transferred off-site for disposal. The cost to dismantle the tanks can be estimated from the RECLAIM unit rates at \$240/m<sup>2</sup> (special unit rate for hydraulic shear work) for a total of \$360,000. The disposal of the scrap metal would be incidental to this cost. Given that the cost for the tank demolition would be considered high, we have assumed that the costs associated with the removal of the liner systems and disposal of non-soil debris would be included in the cost above.</p>	Costs are included for all this work.
28	<p>The BCC estimate does not make any allowances for the crushing and disposal of the 450 barrels remaining on site (Brodie 2011 estimate). For the purposes of the SENES estimate, we have used the Brodie 2011 line item cost (\$9,900).</p>	<p>BCC estimate does include a provision for crushing and removal of 250 barrels. A significant number of barrels have been removed over years and 250 barrels is now the estimated number on site. As stated in the Basis of Costing a barrel crusher has been included as equipment to be brought into site.</p>
29	<p>Grading and contouring of the work areas is included in the BCC estimate however the unit rate is very low when compared to the RECLAIM rates and the area to be graded is also low. We have used a rate of \$0.77/m<sup>2</sup> for an area of</p>	<p>Grading and contouring are included with contractor rates and culvert removal is included as stated in the Basis of Costing.</p>



	29,600 m <sup>2</sup> (as noted in the Brodie 2011 estimate).	
30	The BCC estimate includes an allowance for the scarifying of the roadways but not the airstrip (inconsistent with the IACP which included for scarifying of the airstrip). The unit rate is also low compared to the RECLAIM rate. We have used a rate of \$3,215/km for a total of 14 km of road and 5 km of airstrip (1.2 km times 4 for the four passes that would be required given the airstrip width relative to the roadway width). The cost derived from these updated quantities and rates would be \$61,085.	As stated in the Basis of Costing there are 14 km of roads and a 1,200 m airstrip which will be required to be scarified and 6 culverts will be removed.
31	The removal of six culverts is also missing from the BCC estimate. The estimated cost for the removal and disposal of the culverts would be \$6,000 as quoted in the Brodie 2011 estimate.	As stated in the Basis of Costing grading and contouring are included with contractor rates and 6 culverts removed are included.
	<b>Direct Costs Chemicals and Soil Management</b>	<b>Direct Costs Chemicals and Soil Management</b>
32	No allowance has been made for any environmental site assessment work. Assume \$350,000 to complete a Phase I/II ESA program post closure.	BCC has included an amount for studies in the cost estimate. BCC do not believe the amount stated by AANDC is required based on the environmental assessments completed at site to date.
33	No allowance for management of a residual fuel inventory. The Brodie 2011 estimate assumed 483,268 litres of fuel while the IACP assumes 52,995 litres of residual fuel where the fuel inventory would be used during the reclamation work and demobilization from site. We would recommend the higher volume be used in the estimate as it can't be guaranteed that the volume of fuel will be reduced from that reported in 2011. A unit rate of \$1/litre, as noted in RECLAIM, would cover the transfer and disposal of this	There is no residual fuel at site and as stated in our estimate new fuel will be brought in by Hercules aircraft. Therefore burning or flaring of fuel is not necessary and should be omitted.

	<p>material. A conservative cost for the transfer and disposal of this material would therefore be \$483,268. Of note, the IACP does not consider the flaring of residual fuels. Instead, it is assumed all residual fuels, not used during the reclamation works, would be shipped off- site for disposal. Furthermore we have assumed that the flaring of residual fuel will not be acceptable to the NWB however BCC may which to discuss this option with NWB in the future.</p>	
34	<p>No allowance has been made for the management of waste oil. The Brodie 2011 estimate assumed 100 litres of waste oil with a disposal cost of \$112. Given the volume of fuel that will require off-site disposal we would suggest that the cost for the disposal of the waste oil is covered under the residual fuel cost.</p>	<p>Waste oil was removed in the 2014 season.</p>
35	<p>The IACP and BCC RECLAIM estimate suggests that the identified petroleum hydrocarbon (PHC) impacted soils (1074 m<sup>3</sup>) would be treated on site. A unit rate of \$100/m<sup>3</sup> was used by BCC however in a recent program completed at the former Contwoyto Lake weather station a unit rate of \$150/m<sup>3</sup> was used to complete a PHC treatment program. We recommend that the higher rate be applied and as such the cost of completing the PHC impacted soil clean up would be \$161,100.</p>	<p>The quote was provided by the contractor. We see no reason why a higher rate should be used.</p>
36	<p>We could not find an allowance for management and disposal of the existing hazardous materials inventory in barrels (the actual inventory is unknown). Allow 2,000 kg @ \$2.5/kg = \$5,000 for removal and disposal.</p>	<p>Hazardous waste has previously been removed in 2013 and 2014. The remainder is included in the estimate.</p>

37	<p>The cost assigned by BCC to assess and supervise the hazardous materials abatement program is low at \$10,000. An allowance of \$100,000 would be more reasonable given the duration of the remediation work, the amount of analytical testing and reporting requirements.</p>	<p>This work was completed in the past and there has been no new work at site since to alter this assessment.</p>
	<p><b>Direct Costs</b> <b>Water Management</b></p>	<p><b>Direct Costs</b> <b>Water Management</b></p>
38	<p>The BCC estimate includes the removal of the water collection system currently present on site. The costs provided are consistent with industry rates to remove and consolidate the piping and associated pumps however there is no accounting for the costs associated with off-site disposal of this debris material as specified in the IACP document. An additional \$5,000 would be required to dispose of this material.</p>	<p>Any minor material will be removed from site as backhaul.</p>
39	<p>The BCC estimate does not account for the costs associated with the decommissioning and disposal of the sewage treatment plant. Given that the treatment plant is a batch rotating biological contactor unit, the system can be easily decommissioned and disposed off-site. An allowance of \$10,000 would be required to manage the decommissioning and disposal of the sewage treatment plant and associated piping.</p>	<p>The estimate does include the disposal of sewage treatment plant as are debris materials Mine sump grading is within the overall site grading. We have not broken this down into separate small areas.</p>
40	<p>The decommissioning of the mine sump has not been accounted for in the BCC estimate.</p> <p>The costs for the final grading work have been included in previous work items. An allowance of \$10,000 has been included in the SENES RECLAIM cost estimate to account for the decommissioning and off-site disposal of the liner material as stated in the</p>	<p>The estimate does include the disposal of sewage treatment plant as are debris materials Mine sump grading is within the overall site grading. We have not broken this down into separate small areas.</p>



	IACP document.	
	<b>Direct Costs Monitoring and Maintenance</b>	<b>Direct Costs Monitoring and Maintenance</b>
41	The BCC estimate does not include for the preparation of Closure and Permit Plans or a final site audit. The Brodie 2011 estimate included \$75,000 for this work. We have assumed this value in our evaluation of the reclamation estimate.	As stated in the Basis of Costing, the final site audit is included and permitting is included under "Other".
42	The BCC estimate does include for annual geotechnical inspections for five years which is consistent with the program requirements however the unit rate of \$7,000 per visit is too low. A cost of \$15,000 per visit is more realistic when the cost of an air charter, the engineer's time and travel costs are considered along with reporting time. The NWB review also suggests a Post Monitoring period of 25 years and, as such, the number of inspections should be increased. For the purposes of this estimate we have assumed that after 5 years the period between inspections can be increased to once every two years up to the tenth year and then every five years thereafter.	The cost for geotechnical inspections are based on costs incurred over the past several years by BCC. Post closure monitoring is as stated in the ICRP. Based on studies and engineering to date there is no indication that monitoring would be required beyond a 5 year period.
43	The BCC estimate includes for annual water sampling at five locations for five years.  The rationale for this program is not supplied. Furthermore, the cost to prepare the letter reports and dialogue with the regulatory authorities is low at \$1,000 per report. In the absence of any water sampling rationale, it is assumed that the water samples can be collected by the geotechnical engineer inspecting the site however the cost of reporting should be increased to \$2,500 per report. Similar to the note above the number of inspections needs to	The cost for this work is based on costs incurred over the past several years by BCC.

	increase to cover a period of 25 years.	
44	<p>It is unclear as to what work is included in the costs under Post-Closure Site Maintenance. For example, if all equipment has been moved off-site, then how would</p> <p>250 m<sup>3</sup> of material be moved to repair issues associated with surface erosion? Given the nature of the site and the minimal areas of surface disruption we have not assigned an allowance for this costing item.</p>	If surface erosion is evident a small excavator would be flown in to complete at minimal cost and is included under "Other".
45	It is also unclear as to why, in the BCC RECLAIM estimate, there is a \$25,000 allowance under "Other" for this scope of work. No such allowance has been included in the SENES estimate.	This item is for permits and other items (See above).
	<b>Indirect Costs – Mobilization/Demobilization</b>	<b>Indirect Costs – Mobilization/Demobilization</b>
46	The mobilization assumes all work can be completed in one calendar year. This is possible but if the work extended beyond one year, there would be additional costs which are not included in the SENES estimate.	The work is estimated to be completed in less than one season. It is a small site, similar to most exploration camps and all work can readily be completed in one season.
47	As stated above, the BCC estimate does not include for the mobilization of earthmoving equipment to site. We do not concur with this assumption and have assigned the costs included in the Brodie 2011 estimate to cover the costs associated with the supply of equipment to site (\$485,000).	<p>As stated in the Basis of Costing a detailed review was undertaken at site by a Contractor experienced in completing reclamation work in Nunavut. The contractor (Delta/Carter) spent several days on site to examine equipment, review the status of the site and to review quantities, potential haul distances, availability to relocate suitable material underground and amount of material that would potentially have to be hauled offsite.</p> <p>A critical aspect of this review was the state of existing equipment and whether there would be sufficient suitable equipment to perform the reclaim work in an effective, cost efficient manner.</p>

		<p>Several suitable pieces are in working order and are available for use as is while several others are available with minimal upgrades and maintenance to perform the work required, these include:</p> <ul style="list-style-type: none"> <li>• Front end loader</li> <li>• Ore truck(s)</li> <li>• Dozer with ripper</li> <li>• Grader</li> <li>• Fuel truck</li> <li>• Light vehicles for transport</li> <li>• Drill jumbo</li> <li>• Scoop tram(s)</li> </ul> <p>Furthermore, a vehicle repair shop complete with serviceable equipment is available to upgrade and maintain this equipment.</p> <p>Based on the above, there is no requirement for mobilization of earthmoving equipment to site.</p>
48	No information has been provided by BCC regarding how the volume of fuel to be shipped to site was derived. In the absence of any backup, we recommend using the volume estimated by Brodie in their 2011 estimate (130,000 litres at a cost of \$195,000)	BCC allowed for 110,000 liters of fuel to be brought to site and the cost to fuel is indicated at \$1.43/litre to fly the fuel into site via Hercules.
49	No allowance has been provided by BCC for the supply of small tools and equipment required to complete the reclamation program. The Brodie 2011 estimate included \$100,000 for miscellaneous tools and supplies. This amount has been included in the SENES estimate.	<p>As stated in the Basis of Costing and as discussed above, there is more than sufficient equipment onsite to complete the work. Additional small equipment included in the estimate includes:</p> <ul style="list-style-type: none"> <li>• Barrel crusher</li> <li>• Small oxy/acetylene burning equipment to remove structures etc.</li> <li>• Small tools</li> </ul>
50	No breakdown on how the cost for Mobilization and Housing of workers was derived. In the Brodie 2011 estimate approximately \$50,000 was assigned to transportation for workers, however this would assume one flight during winter road construction season	BCC mobilizes workers into site every year to complete necessary work, provides housing, food etc. and are aware of the costs. The associated costs are reflected correctly within the cost estimate.

	<p>1, a flight in and out for the summer reclamation work period and one flight for the winter road during the demobilization. There is no allowance for supply runs during the course of the winter or summer work periods. An allowance of \$100,000 would be more realistic.</p>	
51	<p>The inferred camp operation cost included in the RECLAIM estimate by BCC is \$100,000. This cost would cover the operation costs during the summer reclamation period but not the winter road construction periods. An allowance of \$200,000 is more realistic given the increased camp costs during the winter period.</p>	<p>There would be no winter road and this project would not need to go into the winter, it would all be completed during the summer season.</p>
52	<p>No winter road costs have been assumed by BCC. It is unclear how BCC proposed to mobilize fuel and supplies to site and demobilized waste debris as outlined in the IACP without a winter road. Furthermore, the regulators have requested the security funding be based on the Ulu property being a stand-alone site independent of the Lupin mine and, as such, mobilization would be from Yellowknife. Given these requirements, for the purposes of the SENES estimate we have assumed that a winter road would need to be constructed from the Ekati road turn-off up to the Ulu mine using the former Lupin mine winter road routing. This would require the construction of 345 km of winter road during both the mobilization and demobilization (690 km in total). The current winter road construction rates provided in RECLAIM range between \$1400 and \$3600/km however during the estimating for the Contwoyto Lake weather station decommissioning program a unit rate of \$4,000/km was provided by local suppliers to construct this winter road. For the purposes of this review, we</p>	<p>This is a small compact site essentially operating under a Type B water license. It is an exploration camp not a mine, the contractor went to site and estimated that less than three full Hercules flights would be necessary to remove those materials and equipment from site that would not be buried in the underground adit. There is no requirement for an ice road to the Ulu site. This sentence was left in by error, originally BCC assumed this would be required, but the contractor that conducted the site visit advised that an ice road would not be required and that everything would be removed from site via Hercules. The cost estimate submitted is therefore based on Hercules transportation to and from site with a total of three backhauls</p>

	have assumed the higher RECLAIM rate of \$3,600/km for a total cost of \$2,484,000.	
53	A winter road tariff was not considered by BCC in their estimate. Using the Brodie 2011 rates an additional \$160,000 has been included in the SENES RECLAIM estimate to account for these associated costs.	There is no requirement for an ice road- therefore no tariff is required.
	<b>Indirect Costs - Other Factors</b>	<b>Indirect Costs - Other Factors</b>
54	<p>Allowance for engineering services associated with the design and construction of the mine seals. An allowance of \$25,000 has been assigned to the SENES estimate.</p> <ul style="list-style-type: none"> <li>Future site characterization may find larger inventories of contaminated soils, especially below the tank farm areas. We have not made provisions for additional contaminated material, but have assumed there is adequate contingency to address these costs.</li> </ul>	The vent shaft is sealed and will remain so. There is no engineering required for sealing of the adit. It uses waste material, frozen in place.
55	Allowance for insurance. We have allowed <b>1%</b> of the estimated direct cost.	BCC has included \$10,000 for insurance which is more than sufficient for one season.
56	Contingency. BCC has allowed for 15%. Given there has been no detailed engineering and this is a highly conceptual plan, we suggest <b>25%</b> would be more appropriate	Contingency of 15% is more than adequate for a mature site such as Ulu where quantities are known and defined and studies have been completed and filed. This approach is well supported by BCC's approach to reclamation cost estimates. Quantities and material cost estimates that form the basis of this estimate are based on proper engineered data and supported by contractor unit rates based on site visits by an experienced Northern Contractor. It should be noted that the material amounts are generally very similar to those previously approved by the NWB, as nothing on site has substantially changed



		since the bond was set by the Board previously.
57	BCC has allowed for 3% for the engineering work. This includes final design and field supervision of the works. We would recommend engineering costs of at least <b>10%</b> for this project.	See above.
58	Project management costs were set at 3% by BCC. This is likely on the low side and suggest <b>5%</b> be used.	We believe that 3% is sufficient for this site.

**Table 2 – BCC Responses to KIA Cover Letter Submission of February 27, 2015**

BCC has reviewed the cover letter submitted by the KIA on February 27, 2015 and below are general responses to the points raised. BCC has not been given the opportunity to review the BGC report (Lukas Arenson, P.Eng., Feb.26, 2015) and may provide additional responses once they have received and reviewed the document.

	KIA Submission	BCC Response
	Cover Letter	Cover Letter
1	Firstly, the KIA does not agree with the estimated cost for closure and reclamation of the Ulu site provided by Bonito, and we consider this estimate substantially under-resourced. Secondly, the KIA does not agree with the allocation of 100% of that security to the Crown and Aboriginal Affairs and Northern Development Canada (AANDC). The KIA submits that a significant proportion of the liability for closure at this site should be allocated to land - essentially for clean-up of Inuit Owned Land – and that security for these costs should be held by the KIA. If the Board agrees, this will require adjustment of the security currently held for Ulu clean-up when the water licence is renewed. Finally, given the length of time that this site has already been on care and maintenance (9 years), KIA does not support a renewal of the Ulu licence for a	With the information provided above and within Tables 1 and 2 BCC believes it has addressed the concerns and provided clarification to their ICRP and the Basis for Costing which are in conjunction with the cost estimate. BCC has no objection to the KIA holding the land based portion of the security. See below in regards to the 10 year licence term requested by BCC.

	10 year period.	
2	Evidence provided by Elgin in the recent Lupin Water Licence Renewal hearing indicated that closure and reclamation of that site, if necessary, would be undertaken by Elgin but that the funds for the work would have to come from Mandalay. This information leaves KIA with some uncertainty about the arrangements for the closure and reclamation of the Ulu site.	As stated during the LMI public hearing, LMI reconfirmed that Mandalay is responsible for its subsidiaries LMI and Elgin during the hearings the following day. Mandalay now reconfirms that they are responsible for their subsidiaries, which includes BCC.
3	The KIA is involved in surface land management, including licensing and leasing on its lands. KIA has issued a land use licence to Bonito/Elgin for the Ulu site (KTL311C013). The terms and conditions of that licence address security requirements and the eventual abandonment and reclamation of the site. Bonito is currently out of compliance with this licence. in particular with the requirement to provide an independent updated security assessment to KIA.	BCC was advised on February 2, 2015 that the Land Use Licence is in good standing while we work with the KIA to prepare a new cost estimate breaking our land and water by May 2, 2015. A more detailed response is included at the beginning of this document.
4	KIA recommends to the NWB that the renewal term for the Ulu Water Licence be no longer than 5 years in length. The company has applied for a 10 year Water Licence. KIA recommends a shorter term: this project has already been on care and maintenance for 9 years; and, in the KIA's view, the risk that satisfactory closure and reclamation will not take place increases over time. It seems unlikely that anything will be done with this site if it has sat unused for almost 15 years. As time goes on the risk of KIA or the Crown being forced to pay for an out of date security estimate increases. A shorter term will ensure Nunavut Water Board oversight.	BCC has requested a 10 year licence term renewal. Section 45 of the <i>Nunavut Waters and Nunavut Surface Rights Tribunal Act</i> ("NWNSTRTA") provides that the term of a licence or any renewal shall not exceed twenty-five (25) years. The terms and conditions of the water licence are sufficiently stringent to provide protection of water resources over a 10 year term. BCC is confident that it has met the requirements for a 10 year renewal of the License. BCC is required to submit a cost estimate each year with its Annual Report and the Board has the ability to reassess the security amount each year. We would also wish to state that we completed several thousand meters of drilling at Ulu in 2012 and further work in 2013. Therefore the statement that there is a risk is not correct.
5	The KIA issued a land use licence to Bonito/Elgin for the Ulu site (KTL311C013) and a condition of the licence required an	See above.

	<p>independent engineering estimate of closure and reclamation liability as well as collaboration with the KIA (again, please refer to the bottom of page 1 of the BGC report). This was supposed to be the security estimate which KIA and Elgin would jointly submit to the NWB in this proceeding. Bonito/Elgin did not comply with the requirements of the land use licence. Consequently, KIA retained engineering assistance to review the security estimates submitted by Bonito/Elgin and AANDC.</p>	
6	<p>Although BGC did not provide an independent quantitative assessment of what the reclamation security should be at Ulu for the KIA, they did qualitatively assess the Bonito/Elgin estimate and reviewed their proposed reclamation measures. The points below are a summary of what the KIA considers are important deficiencies in the Bonito/Elgin security estimate as highlighted in the BGC report:</p> <ul style="list-style-type: none"> <li>Reclamation estimates are most appropriate when they are contextualized around three detailed plans (a Closure Plan, a Construction Plan, and a Monitoring Plan). Such plans were not available to BGC.</li> </ul>	<p>BCC agrees. Since there is no construction at the Ulu site there is no need for a construction plan. The monitoring plan is already a part of the water licence and the results are submitted within the Annual Reports each year. The ICRP is on file with the NWB and BCC advised the KIA on February 4, 2015 as to where it was located on the NWB ftp site.</p>
7	<ul style="list-style-type: none"> <li>Unit costs appear low and require support/rationale.</li> </ul>	<p>Units costs were provided by vendor quotes from a third party northern contractor and in line with other cost estimates provided to the NWB for projects in the North.</p>
8	<ul style="list-style-type: none"> <li>Construction costs and plans are not provided for the winter road to Lupin, nor were any specific details provided regarding the mobilization/demobilization of heavy equipment, time frames, seasons and the associated costs.</li> </ul>	<p>As clarified above, no winter road will be used, transportation will be provided by Hercules.</p>
9	<ul style="list-style-type: none"> <li>Very little detail and supporting data is</li> </ul>	<p>The \$200,000 allocated to this task is more than</p>

	provided for the reclamation of the portal access.	sufficient. The Brodie estimate prepared for AANDC in 2013 allocated \$15,000 and AANDC does agree that \$200,000 is a sufficient amount.
10	<ul style="list-style-type: none"> <li>Specifically, details regarding the costs associated with the ice-plug removal, potential need for pumping water out from the underground mine, and costs for proper ventilation and exhaust of the underground are.</li> </ul>	The \$200,000 allocated to this task is more than sufficient. The Brodie estimate prepared for AANDC in 2013 allocated \$15,000 and AANDC does agree that \$200,000 is a sufficient amount.
11	<ul style="list-style-type: none"> <li>The Bonito/Elgin estimate does not provide sufficient data or justification to provide confidence that they are appropriately dealing with the rock pile, buildings and equipment, chemicals and soil contamination, or monitoring and maintenance.</li> </ul>	Units costs were provided by vendor quotes from a third party northern contractor. These items are included in the ICRP and the Basis of Costing.
12	The security held under the expired licence was completely allocated to water related liability and the full amount is held by the Minister on behalf of the Crown. The KIA disputes that allocation. In our view, much of the liability at the Ulu site is related to land and in this case, IOL. We agree with BGC that 80 to 90% of the total cost should be land-related, and not 2/3 as suggested by AANDC. Again, the KIA would like an independent, comprehensive, collaborative on-site assessment of reclamation costs, and for this information to feed into a breakdown of land versus water related liability.	BCC has no objection to the KIA holding the land based portion of the security.
13	KIA will require that Bonito provide security for land related liabilities in an acceptable form before further land tenures will be offered to the company. The effect of this arrangement will be to partially "double bond" the project unless the Board takes the security required by KIA into account. The Board has made such accommodations in the	BCC has no objection to the KIA holding all or a portion of the security bond. BCC does not agree with "double bonding", we have included the full cost of reclamation in our cost estimate.

	past, beginning with the licence for Shear Diamonds Nunavut Inc. The KIA respectfully requests that the Board do so again in this licence renewal. We trust that NWB will agree.	
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### **Conclusion**

To restate, BCC's approach to the cost estimate is precautionary and sufficient information has been provided. The BCC estimate is based upon sound engineering data and scientific study to support its position with respect to reclamation estimates. In contrast, AANDC's suggested reclamation estimate of \$7.5 M is not supported by any detailed evidence. Furthermore they have included many erroneous items such as burning of fuel, completing a winter road and adding a large contingency for a mature site with known quantities.