PUBLIC HEARING

WHITES POINT QUARRY AND MARINE TERMINAL PROJECT

JOINT REVIEW PANEL

VOLUME 5

HELD BEFORE:	Dr. Robert Fournier (Chair) Dr. Jill Grant (Member) Dr. Gunter Muecke (Member)
PLACE HEARD:	Digby, Nova Scotia
DATE HEARD:	Thursday, June 21, 2007
PRESENTERS:	 -Environment Canada Allan Hanson/Maria Dober/Gary Lines -Nova Scotia Environment and Labour Kim MacNeil/Bob Petrie/Bruce Arthur/John Drage/Andrew Murphy/Barb Ryden/Darlene Fenton Scott Lister/Darrell Taylor -Natural Resources of Canada Mr. Andrew McAllister -Partnership of the Sustainable Development of Digby Neck and Islands Society Mr. Kemp Stanton/Ms. Lisa Mitchell

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Per: Hélène Boudreau-Laforge, CCR

OPENING REMARKS (Dr. ROBERT FOURNIER)

1 Digby, Nova Scotia 2 --- Upon resuming on Thursday, June 21, 2007, at 9:00 a.m. 3 THE CHAIRPERSON: Ladies and gentlemen, 4 we would like to bring the meeting to order please. 5 For those of you who are new to this 6 session, I would like to introduce the Panel. On my left is 7 Jill Grant, who is a professional planner. On my right is 8 Gunter Muecke, who is an earth scientist. And I am Robert 9 Fournier, the Chairman, and I'm an oceanographer by 10 training. 11 A couple of comments for people who are 12 new to this session is that we have been identifying the 13 fact that headsets are available for those individuals who 14 find the acoustics less than desirable. The headsets are there of course in case 15 16 we have French or English presentations, and so there is 17 simultaneous translation. The headsets sometimes help a 18 great deal simply hearing. Also, I need to bring to your attention 19 20 the fact that the schedule is being revised every day, and 21 if you wish a revised schedule, the Secretariat can in fact 22 provide it to you. 23 Before we turn to our presenters this 24 morning, I need to make a comment about the undertakings. 25 There are no undertakings that are due

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1 There is one outstanding undertaking that was today. 2 requested for yesterday, but we have agreed to a later date. 3 And yesterday we had several additional undertakings, which 4 I will briefly go through. 5 The first was an undertaking to Bilcon of Nova Scotia to provide a drawing illustrating the 6 7 location of blasts at the extremities of the property 8 illustrating the 500-metre and 2,500-metre safety zones, and 9 the 500-metre observation zone centred on the loading arm of 10 the marine terminal. That was number 26. 11 Number 27 was directed to Transport 12 Canada, to clarify the regulatory requirements for the 13 release of bilge water from a bulk carrier while on port and 14 engaged in the loading of material. 15 Number 28, Transport Canada again, to 16 clarify if ballast water exchange required by regulation results in 100 percent exchange. 17 18 Number 29, Fisheries and Oceans Canada, to provide, following collaboration with Environment Canada, 19 20 an assessment of the ecological risks associated with the 21 ammonia residuals resulting from blasting and episodic and 22 control releases from the Project's settling ponds. 23 Number 30, also to Fisheries and Oceans 24 Canada, to provide the value of the lobster fishery in the 25 Project area relative to other areas in the Province.

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1 Number 31, also to Fisheries and Oceans 2 Canada, to provide a listing of the SARA protected species, 3 the potential effects on each, whether or not effects are 4 likely, adverse, mitigable and whether or not a SARA permit 5 will be required. All of these are requested for the 29^{th} 6 7 of June. 8 One other item of business, and that is 9 Mr. Buxton, in reference to something that occurred 10 yesterday, your blaster identified the number of... Well he 11 said one pound, or 0.4 kilograms per tonne of explosive was 12 required in the blasting process, and that we are 13 anticipating 80,000 tonnes required each biweekly period. 14 According to our calculations, that works out to 32 tonnes of explosives. So 32 tonnes of 15 16 explosives required biweekly in order to generate 80,000 17 tonnes of rock. 18 According to the CLC records, Bilcon is 19 on record as saying that the amount of explosives required 20 would be 7.5 tonnes, so we have a disparity between 32 21 tonnes and 7.5 tonnes. 22 We have an undertaking for you, and that 23 is would you clarify the amount of explosive that is 24 required per blast? Would you clarify the amount required 25 per tonne, that is the total per blast, meaning the biweekly A.S.A.P. Reporting Services

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OPENING REMARKS (Dr. ROBERT FOURNIER)

1 amount? Would you clarify the amount required to produce a 2 tonne of rock? Can you confirm that you will be blasting 3 once every two-week period? And could you identify the 4 total amount of explosives that will be required in that 5 two-week period? So the amount required per blast, the 6 7 amount required per tonne, the total amount of explosives required and you to confirm that you will be blasting only 8 9 once every two weeks. 10 Can you tell me when that undertaking 11 would be available? 12 Mr. PAUL BUXTON: We will have that 13 undertaking completed by Tuesday. 14 THE CHAIRPERSON: Tuesday? And one other 15 thing, we want the undertaking done in metric, all metric. 16 No English units. 17 Dr. GUNTER MUECKE: Mr. Buxton, perhaps I 18 could add to that. The figure... The only figure we have 19 at the moment regarding the charge per hole is the one that 20 has been mentioned in the initial blast, and that is 45 21 kilograms per hose. 22 If we take the 32 tonnes that we are 23 looking at here, the number of shot holes that would have to 24 be used would be in the order of 600, 700, so perhaps in the 25 same undertaking, could we get an idea as to whether these

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1 figures are what you have in mind or how they differ from 2 what I just mentioned, that is to say the charge per hole 3 and the number of holes required per blast? 4 Mr. PAUL BUXTON: Thank you. I will add 5 that to the list, thank you. 6 THE CHAIRPERSON: Thank you. Now we will 7 move forward into our agenda for this morning. We have with 8 us Environment Canada, four individuals. 9 Could I get you all to identify 10 yourselves, your name and your affiliation within Environment Canada, if possible. 11 12 If you have a name which is difficult to 13 spell or unusual in any way, would you please spell it out? 14 It's for the benefit of the transcription process. 15 Mr. ALLAN HANSON: Allan Hanson, a 16 Wildlife Biologist, Canadian Wildlife Service, Environment 17 Canada. 18 Ms. MARIA DOBER: Maria Dober, and that's 19 DEPARTMENT-o-b-e-r; I'm a Regional Director for 20 Environmental Protection Operations, Environment Canada, in 21 Halifax. 22 Mr. GARY LINES: Gary Lines, and that's 23 I am a Climate Change Meteorologist with the L-i-n-e-s. 24 Meteorological Survey of Canada Branch, Environment Canada. 25 Mr. BARRY JEFFREY: Barry Jeffrey, I'm

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1 with the Environmental Assessment Program for Environment 2 Canada for the Atlantic region. 3 THE CHAIRPERSON: I believe you have a 4 presentation for us? 5 Ms. MARIA DOBLER: Yes, we do. 6 THE CHAIRPERSON: Thank you. 7 PRESENTATION BY ENVIRONMENT CANADA - VARIOUS INDIVIDUALS 8 Ms. MARIA DOBLER: First of all, I would 9 like to thank the Panel for the opportunity to participate 10 in these public hearings with respect to this Whites Point 11 Quarry and Marine Terminal. 12 You've met the representatives that we 13 have here today. I would like you to be aware that there 14 are a number of other people within Environment Canada who 15 have participated in the review of this Environmental Impact 16 Statement. 17 While they are not here today, we will 18 try and answer any questions related to their specific areas 19 of expertise. 20 If that is not possible, we do commit to 21 bringing back to you information related to specific 22 questions prior to the close of the hearings. 23 I'd like to start this morning by describing our role in the Panel Review for this Project. 24 25 For this proposed quarry project,

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1 Environment Canada is participating as an expert federal 2 authority under the Canadian Environmental Assessment Act. 3 As an expert federal authority, 4 Environment Canada does not have a specific environmental assessment decision in relation to this Project, nor does 5 6 this Project require any permits or authorizations that 7 would be issued by Environment Canada. 8 However, as an exert federal authority, 9 Environment Canada is in possession of knowledge and 10 information in a number of areas that are pertinent to this 11 Project. 12 Our knowledge and information is based 13 on the Department's authorities under federal legislations. 14 Some examples that are directly relevant to this review 15 include the **Department of Environment Act**, the **Migratory** Birds Convention Act and the Fisheries Act. 16 17 The Department of Environment Act gives 18 Environment Canada the responsibility to gather and 19 interpret climatological and environmental quality data. 20 The Migratory Birds Convention Act gives 21 us the authority to enforce general prohibitions against 22 taking, disturbing, destroying or otherwise harming birds, 23 their nests and their eggs. Certain sections of the Fisheries Act 24 25 give Environment Canada authority to enforce general A.S.A.P. Reporting Services

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prohibitions against the deposit of deleterious substances 1 2 into waters frequented by fish. 3 The overall governance of environmental 4 issues is generally shared with several other federal and 5 provincial departments. 6 Some examples of this are highlighted: 7 The protection of birds is shared between Environment Canada 8 and the provinces. 9 Environment Canada, Fisheries and Oceans 10 Canada and Parks Canada share a responsibility for the 11 protection and recovery of species listed under the Species 12 at Risk Act. 13 The Federal Government also cooperates 14 with provinces under the Accord for the Protection of 15 Species at Risk. 16 Responsibilities for protection of water 17 and air quality are generally shared with the provinces. 18 As an expert federal authority, 19 Environment Canada has reviewed the Environmental Impact 20 Statement and the responses to information requests which 21 has been prepared by the Proponent. 22 As a federal authority, our role in this 23 process is to identify issues, ask questions and make 24 recommendations for the consideration of the Panel. 25 Based on the invitation from the Panel

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1 to participate in these hearings and report on our findings, 2 Environment Canada prepared a written submission focussed on 3 specific climate, wildlife and environmental quality issues where we believe that further clarification should be 4 5 provided. 6 For each of these issues, 7 recommendations have been provided for consideration by the 8 Panel where additional analysis or actions could be taken to 9 further reduce the uncertainty and potential adverse 10 environmental effects. 11 The Department has filed its written 12 submission with the Panel Secretariat, and I now believe 13 that it is posted on the Panel Review Website. 14 Our presentation here today is based on 15 that submission. 16 Through the course of this presentation, 17 I will focus on each of the three key issues that we have identified, and I will highlight the recommendations that we 18 19 have made on these issues. The first of the three issues that I 20 21 will be speaking to relates to how effects of the 22 environment on the Project have been considered by the 23 Proponent. 24 As stated, Environment Canada has 25 relevant expertise on climatological conditions. A.S.A.P. Reporting Services

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1 In a coastal marine environment, 2 important factors to be considered in assessing effects of 3 the environment on a project include winds, precipitation, 4 fog, wave action and storm surge. 5 The extremes and variability of these 6 factors and the influence of climate change merit particular 7 attention in minimizing the risks of accidents and 8 malfunctions which can have consequences for valued 9 ecosystem components such as wildlife and environmental 10 quality. While the specifics of future climate 11 12 variability are uncertain, climate scientists do know, as a 13 result of running a series of global climate models and 14 analysing the results, that climate variability will 15 increase. 16 This means that relying solely on the 17 change and the mean value of any climate variable will not 18 provide a complete picture unless you also consider the 19 change in future frequency and intensity of extremes. 20 Environment Canada can provide limited 21 data sets specific to the Annapolis Valley. The specific 22 site is in Greenwood, Nova Scotia. 23 On projected temperature change, in 24 degree Celsius, and precipitation change in percent, 25 monthly, annually and seasonally, for the three tri-decades A.S.A.P. Reporting Services

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1 leading through the next 100 years. 2 Environment Canada can also provide 3 limited information on extreme climate events such as 4 extreme rainfall by duration, 24-hour, 3-day, 5-day, and its projected change of frequency into the future. 5 6 We are also able to provide assistance 7 in interpreting values projected by global climate models as 8 they relate to the specifics of this Project. 9 In the review of this particular 10 Project, Environment Canada has described how climate 11 conditions could affect blasting activities, the sediment 12 retention ponds and the marine terminal. 13 The Proponent has indicated that: "No 14 blasting will be permitted if there is a thermal atmospheric 15 inversion or a low cloud cover or fog conditions". 16 Environment Canada has conducted an 17 analysis of the likely frequency and duration of periods 18 when blasting would not be possible based on the Proponent's 19 criteria and using available climate data. 20 Based on our analysis, Environment 21 Canada believes the Proponent may be underestimating the 22 number of days when weather conditions would not allow 23 blasting. 24 While we have not offered a specific 25 recommendation in this matter, it would be prudent for the A.S.A.P. Reporting Services

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1 Proponent to reconsider the available climatological data 2 and recalculate the likely number of days that blasting 3 could not take place. 4 In the design of sediment retention 5 ponds, Environment Canada encourages the use of the daily 6 rainfall data set available for the years 1870 to 2006 in 7 the calculation of the 24-hour 100-year return period 8 rainfall event. Environment Canada calculations using 9 10 this long-term data set yield a predicted rainfall amount of 11 about 150 millimetres, compared to the amount of 12 approximately 125 millimetres calculated by the Proponent using the 1971 to 1996 data set. 13 14 When applying meteorological information 15 to the design of infrastructure such as the retention ponds, the Proponent should not rely solely on historical 16 17 information. 18 Recent research by Environment Canada as 19 reported in "Water Sector Vulnerability and Adaptation to 20 Climate Change", prepared by JSCI and MSC (2000), has 21 indicated that: 22 "...when accounting for the effects of 23 climate change on extreme events such as particularly heavy precipitation, the 24 25 return period for these events could

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1 reduce by at least a factor of two." 2 This would result, by the end of the 3 century, in 100-year event amounts becoming 50-year event 4 amounts. Also with regard to rainfall, the 5 6 Proponent indicated in its documentation that sediment 7 retention ponds would be designed and constructed to 8 accommodate probable maximum precipitation or PMP events. 9 However, we were unable to find a PMP 10 analysis in the submitted E.A. documentation. 11 It would be helpful if the extreme 12 rainfall threshold to which the ponds are to be designed 13 could be confirmed. 14 The Proponent has indicated that draw 15 down of sediment retention pond water would begin at least 16 72 hours prior to a forecasted major storm. 17 However, it's important to note that 18 Environment Canada does not provide a 72-hour warning 19 window. 20 Severe weather warnings are issued 12 to 21 24 hours in advance of a predicted event and a worded forecast for rainfall amounts is issued no more than 48 22 23 hours in advance. 24 With respect to potential effects of the environment on the project, Environment Canada encourages 25 A.S.A.P. Reporting Services

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1 the Proponent to consider appropriate climatological factors 2 and best available data in finalizing sediment retention 3 pond design and to take steps that would help ensure built structures remain effective, during and even after storm 4 5 events. 6 In this regard, the Proponent is further 7 encouraged to ensure that the inspection plan for sediment 8 retention ponds take storm events into consideration. 9 Sea-Level Rise is also an important 10 consideration in project planning and design. 11 The recently released Inter-governmental 12 Panel on climate change (working group 1) full report 13 includes an update of the global range for Sea-Level Rise by 14 2100. 15 These updated predictions reflect current scientific knowledge and in understanding that 16 thermal expansion and land ice melt are likely the dominant 17 18 factors leading to Sea-Level Rise. 19 Based on this most recent information, 20 Environment Canada has updated the Sea-Level Rise factor 21 that it encourages proponents to incorporate into the 22 planning and design of Atlantic Canada developments. 23 Based on average projections for Sea-24 Level Rise, combined with subsidence of the land mass, an 25 average relative Seal-Level Rise of approximately 30

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1 centimetres by the year 2050 is estimated for Atlantic 2 Canada. 3 Therefore, we would encourage the 4 Proponent to incorporate a total relative Sea-Level Rise of 5 approximately 30 centimetres into project planning and 6 design. The marine environment within the 7 project area is highly dynamic. 8 9 In the E.A. documentation, Environment 10 Canada looked for characterization of environmental conditions that would influence the integrity and operation 11 12 of the marine terminal. 13 The Proponent has described a reasonable 14 procedure for developing a detailed analysis of the marine 15 environment. 16 Overall however, the Proponent appears 17 to suggest that oceanographic conditions at the project site 18 do not pose any particular engineering challenges for the design and operation of the proposed marine terminal. 19 20 Information available to Environment 21 Canada suggests that these conditions could pose 22 considerable difficulty. 23 The Department has conducted a 24 preliminary analysis of the frequency distribution of wave 25 heights in the Bay of Fundy and wind speeds at coastal A.S.A.P. Reporting Services

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1 stations which may be helpful to a fuller understanding of 2 this issue. 3 I'll summarize those results now, but 4 they are described in more detail in the Department's 5 written submission. 6 Environment Canada understands that 7 typical operating limits for ships berthing and loading at 8 the marine terminal may be around a significant wave height 9 of 1.5 metres. 10 Available wave data shows that 11 significant wave heights in the area reach and exceed two 12 metres, approximately 17 percent of the time on an annual 13 basis. 14 Looking more closely at December, 15 January and February, months where wind and waves are generally higher, we found that significant wave height over 16 17 1.5 metres occurred more than half of the time. The peek 18 significant wave height was 9.6 metres. 19 In addition, during those same winter 20 months, waves frequently had longer wave periods, that is 21 the time between waves tended to be longer. 22 The longer wave periods have the 23 potential to amplify the wave-response movement of the 24 Panamax-size ships that are proposed for use in this 25 Project.

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1 The Proponent has also indicated that 2 the wind and wave data comes from a grid point in the middle 3 of the Bay of Fundy and does not necessarily represent 4 conditions specifically at Whites Point. However, the water between the grid 5 6 point and the proposed locations of the mooring dolphins 7 remain quite deep, so waves could retain much of their 8 original energy. Wind data from Brier Island during 9 10 winter months showed winds frequently exceeding 20 knots, 11 and sometimes exceeding 35 knots. 12 It also showed that winds during the 13 winter are predominantly from the west, northwest and the north. As a result, there would be no sheltering from the 14 15 land at the marine terminal. 16 This preliminary analysis of winds and 17 waves alone suggests that additional investigation of site 18 conditions is warranted during the project-planning stage. 19 Further analysis of available 20 information would reveal the potential frequency at which 21 operating thresholds could be exceeded at the Project 22 location. 23 The analysis would also highlight 24 implications for Project design and operation, as well as 25 highlight steps needed to reduce the risks of environmental A.S.A.P. Reporting Services

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1 emergencies.

Environment Canada identifies in its written submission some specific considerations and data sources that can be accessed by the Proponent in conducting these analysis.

6 Environment Canada encourages the 7 Proponent to conduct this further analysis of environmental 8 conditions expected at the Project site, including a 9 consideration of appropriate climatological factors and best 10 available data, and to identify any important implications 11 for design and operation of coastal infrastructure.

12 The second of the three key issues I am 13 highlighting today relates to wildlife, and in particular 14 migratory birds.

Environment Canada is responsible for delivering on Canada's obligations for the conservation of migratory birds through administration of the **Migratory Birds Convention Act** and its associated regulations.

19 The Migratory Birds Convention Act 20 applies directly to the protection of migratory birds, 21 including their nests and eggs, while habitats are generally 22 managed under the authority of provincial or territorial 23 governments.

24The proposed Project has the potential25to affect migratory birds. It is incumbent upon the

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Proponent to identify the best approach to complying with 1 2 the Migratory Birds Convention Act based on the specifics of 3 this Project. 4 In support of the Panel Review, Environment Canada has provided information and identified 5 6 some management considerations related to potential 7 interactions of migratory birds with blasting activities, 8 project lighting, accidents and spills and clearing of 9 vegetation. 10 Many birds use the northern coastal 11 waters of Digby Neck, and this is reflected in the results 12 of a Winter Fieldwork conducted by the Proponent. 13 In the absence of guidelines for blasting activities on-land and protection of waterbirds, 14 15 the Proponent proposes the use of a guideline that is used to protect pinnipeds, such as seals. 16 17 Based on this approach, if waterbirds 18 are sighted within 170 metres of the blast site, the blast 19 coordinator would be notified and detonation would not take place until birds had moved out of that 170-metre radius. 20 21 To minimize potential adverse effects on 22 migratory birds as a result of blasting operations, we 23 recommend that the Proponent implement a series of measures 24 as follows. 25 The Proponent should implement an A.S.A.P. Reporting Services

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1 appropriate blasting guideline on a year-round basis for the 2 protection of all groups of migratory birds using the coast, 3 including waterbirds, waterfowls and shorebirds. 4 Furthermore, the Proponent should, in 5 consultation with Environment Canada, design a monitoring 6 program that allows for detection of potential adverse 7 effects and implementation of timely adaptive management 8 actions. 9 Should the project should proceed, EC 10 would expect that the Proponent would take the necessary 11 action if its monitoring program detected adverse effects on 12 migratory birds. 13 Such actions could include revisions to 14 those blasting guidelines. 15 Bird collisions at lit and floodlit structures have been a growing concern which has been 16 documented for a range of projects. In Atlantic Canada, 17 18 nocturnal migrants and night-flying sea birds are the birds 19 most at risk of attraction to light. 20 Attraction to light may result in 21 collision with the lit structures or their support structures, or with other birds. 22 23 Environment Canada agrees with the 24 Proponent's proposal to use sensor-activated lighting for 25 security purposes. However, it is recognized that for most A.S.A.P. Reporting Services

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of the year night lighting would be required for early
 morning hours and in the evening during the operation of the
 facility.

In its submission, the Department has 4 5 identified a number of best management practices and 6 additional information sources related to this issue. 7 The Proponent has indicated that it 8 intends to test the effectiveness of mitigation measures for 9 lighting by conducting monthly monitoring for a period of 10 one year in the vicinity of project structures during bird 11 migration periods and quarry operations. 12 While Environment Canada agrees that a

13 follow-up program is important to managing this issue, the 14 monthly monitoring as proposed is likely to be of limited 15 value, as many bird carcasses would be scavenged before they 16 are detected.

Therefore, we are suggesting that the Proponent should prepare a detailed plan for minimizing potential adverse interactions between birds and lighting that includes a detailed avian collision monitoring program designed in consultation with Environment Canada.

The monitoring program should concentrate survey efforts on peak spring and fall migration periods, as well as mornings following inclement weather, so as to facilitate the timely detection of adverse effects and

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implementation of appropriate mitigation actions. 1 2 The Department should be provided with 3 monitoring results in a timely manner, but should be 4 immediately advised, and that would be within 24 hours, of any collisions involving a single species at risk or large 5 6 numbers of birds, and we would consider that to be anything 7 greater than 10 birds. 8 In our written submission, we have 9 referred to a guidance document that may be helpful in the 10 preparation of a detailed monitoring plan to address this 11 issue. 12 The risk and significance of 13 uncontrolled releases of hazardous materials interacting 14 with waters and areas frequented by migratory birds has not 15 been fully considered in the information provided by the In the case of hydrocarbons, even a small spill 16 Proponent. 17 could be significant if it reaches avian species at risk, 18 sensitive habitats or large numbers of birds. 19 The Proponent should develop a spill 20 response plan that addresses spills that may result in 21 oiling of birds and/or sensitive habitats. The plan should 22 include specific measures for keeping birds away from a 23 spill, for dealing with accidents where birds are oiled 24 and/or sensitive habitats are contaminated, and for handling 25 oiled birds.

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1 Another key element of a mitigation plan 2 for the protection of birds is avoidance of certain project 3 activities during the breeding season for migratory birds. 4 One of these project activities is clearing of vegetation. Environment Canada has provided information on best 5 6 practices related to clearing activities in its written 7 submission. 8 The Environmental Impact Statement 9 documentation indicates that the Proponent has conducted 10 biophysical surveys. Environment Canada would request that 11 a copy of the 2006 biophysical survey reports be provided. 12 We would also ask that the Proponent 13 commit to providing the Department with any additional 14 reports regarding the pre or post-construction survey and 15 monitoring work that is conducted for birds, wetlands and 16 terrestrial species. 17 Should the project proceed, this 18 information will allow the Department to confirm legislative 19 requirements and to provide assistance as appropriate to Federal responsible authorities as well as Provincial 20 21 agencies in meeting obligations resulting from this 22 environmental assessment process. 23 The third issue raised by Environment 24 Canada relates to the consideration of potential impacts on 25 environmental quality. As previously indicated, Environment A.S.A.P. Reporting Services

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1 Canada has expertise related to air quality and water 2 quality that is relevant to this environmental assessment 3 process. 4 With respect to water quality, Environment Canada administers legislation that would apply 5 6 to the project if it should proceed. 7 The Proponent has described several 8 activities that could result in the release of contaminants 9 to water. It is the responsibility of the Proponent to 10 ensure that these activities are managed so as to prevent the release of substances deleterious to fish or harmful to 11 12 migratory birds. 13 Environment Canada had requested information regarding the potential for residues of blasting 14 15 activities to enter water sources and adversely affect water 16 quality. As of yet, this information has not been provided. 17 We would recommend that the Proponent 18 submit the requested information as well as proposed 19 management measures, as appropriate, so that potential 20 adverse effects can be better understood and appropriate 21 mitigation and follow-up monitoring measures identified. 22 Should the project proceed, it will be 23 important to develop and implement a water quality 24 monitoring program that would allow verification of 25 compliance with legislative requirements as well as timely

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1 information on changes to water quality within the project 2 area. 3 Should monitoring identify environmental 4 impacts or demonstrate non-compliance with regulatory 5 requirements, mitigation measures should be implemented as 6 necessary. 7 Therefore, we recommend that the 8 Proponent develop and implement this water quality 9 monitoring program to confirm the regulatory compliance and 10 facilitate the development and implementation of appropriate 11 adaptive management actions. 12 The Proponent has also described several 13 activities that would result in releases of contaminants to air. At this time, Environment Canada does not regulate air 14 15 emissions related to this project. 16 However, through the Canadian Council of 17 Ministers of the Environment, the Department does cooperate with its provincial and territorial counterparts in 18 19 investigating applicable best management practices and in setting national standards for certain substances. 20 21 For example, the Continuous-Improvement 22 in Keeping-Clean-Areas-Clean principles of the CCME "Canada-23 Wide Standards for Particulate Matter and Ozone" are 24 pertinent to this proposed project, which is located in an area that is relatively pristine in terms of air quality 25

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1 conditions. 2 The Proponent has satisfactorily 3 addressed many of the Environment Canada Information 4 Requests related to the assessment of potential effects on 5 air quality. 6 However, estimates of contaminate 7 emissions from certain project sources such as heavy 8 equipment and bulk carriers has not yet been provided. 9 Based on the project description, it is 10 not expected that engine emissions related to the project 11 would contribute significantly to air quality issues. 12 However, both Environment Canada and the 13 international community recognize that the marine sector is 14 an increasing contributor to air emissions. 15 The provisions for engine emission 16 estimates for these sources is important to a full accounting of potential adverse effects and is consistent 17 with investigations of the contribution of marine emissions 18 19 elsewhere in Atlantic Canada and North America as a whole. 20 In satisfying the EIS guidelines on the 21 assessment of effects on air quality, the Proponent is 22 encouraged to provide engine emission estimates for all 23 project sources influencing air quality. 24 In this presentation, we have identified 25 issues related to the Departmental mandate and offered A.S.A.P. Reporting Services

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1	recommendations that we believe merit further attention in	
2	the planning and management of the project.	
3	We have also made several references to	
4	the need for additional information analysis and follow-up	
5	monitoring. In addressing this need, uncertainties can be	
6	reduced, impact predictions can be verified and the	
7	effectiveness of mitigation measures can be determined.	
8	The information gained can and should be	
9	used for the management of unacceptable or unexpected	
10	effects of the project.	
11	Environment Canada is of the opinion	
12	that, should the project proceed, the Proponent should be in	
13	a position to address our recommendations. The Proponent is	
14	advised, however, that it is ultimately responsible for	
15	compliance with the legislation that Environment Canada	
16	administers.	
17	Once again, I would like to thank the	
18	Panel for your attention and we would be happy to try and	
19	answer any questions that you may have.	
20	THE CHAIRPERSON: Thank you, Ms. Dober.	
21	That was very clear.	
22	Jill Grant will begin some questioning.	
23	PRESENTATION BY ENVIRONMENT CANADA - QUESTIONS BY THE PANEL	
24	Dr. JILL GRANT: Thank you very much for	
25	that very informative presentation.	
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1 We noticed in the earlier material from 2 Environment Canada that one of the other areas that was 3 commented on that you didn't mention today was the need to 4 address principles of sustainable development through the 5 assessment. 6 I wonder if you might comment on that 7 issue; whether the approaches taken are sufficiently 8 addressing concerns about sustainable development. 9 Ms. MARIA DOBER: I'll try and answer it 10 briefly, and then I would ask Barry if he had any follow-up. In terms of the initial information 11 12 provided by the Proponent, we offered some information 13 sources that the Proponent could access to get some 14 perspectives on issues like sustainable development. 15 With respect to our Department, we obviously have a leadership role to play in terms of the 16 17 environmental pillar associated with sustainability, and I 18 think that the submission that we've provided and the 19 information that we've shared here today indicate how we would do that with respect to looking at environmental 20 21 predictions with respect to environmental protection and 22 with respect to ecosystem sustainability. 23 So from those aspects, that is where our 24 Department sees sustainable development issues coming with 25 respect to this project in specific.

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1 Do you have anything further? 2 Mr. BARRY JEFFREY: Yeah. I guess that 3 pretty much captures it. 4 We certainly offered some materials that 5 we thought could be helpful to the Proponent in addressing 6 some of the broader principles that have been put down by 7 the Panel as it related to precaution and ecosystem 8 approach. some of these were third-party materials, but 9 nevertheless could be instructive. 10 And as Maria pointed out, as well, as a 11 team, as a Department, we certainly had those principles in 12 mind as we approached the various issues such as migratory 13 birds and the precautionary approach that could be taken in protecting that species. 14 15 So that would be perhaps the way we 16 focussed our efforts when it came to the sustainability 17 principles that were identified. 18 Dr. JILL GRANT: And how would you 19 characterize the assessment provided in terms of whether it addresses those principles, sustainable development 20 21 precautionary principles? 22 The Environment Impact Statement 23 provided, does it do that? 24 Mr. BARRY JEFFREY: Well, in terms of our 25 specific mandate of responsibilities, I've focussed again, I A.S.A.P. Reporting Services

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1 guess, on those very specific things where we think the 2 environmental management effort could be enhanced to better 3 address ideas of precaution and sustainability. 4 And perhaps maybe we could talk some 5 specific examples on migratory birds or climate. 6 Mr. ALLAN HANSON: From a wildlife 7 perspective, one of the approaches we take to sustainable 8 development is a mitigation sequence of avoidance of 9 impacts, minimization of impacts, and compensation for any 10 residual impacts. 11 And to a large extent, that's what the 12 plan for monitoring is trying to accomplish with regard to 13 coastal birds. Dr. JILL GRANT: Thank you. Just to find 14 15 my next question here. 16 You made some comments in your 17 presentation about the scientific information that was 18 provided in the assessment not being adequate to determine 19 some of the effects, and we're wondering whether you see it 20 as adequate for effective adaptive management. 21 Is the baseline information that's 22 provided adequate for effective adaptive management? 23 Ms. MARIA DOBER: We have indicated that 24 we think that there is additional information that the 25 Proponent can provide an additional analysis that should be A.S.A.P. Reporting Services

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1 conducted.

2 We believe that, with what has already 3 been provided, this should help in identifying or reducing some of the uncertainties, verifying some of the predictions 4 5 and then allowing the Proponent to manage the project in a 6 way that can respond to issues that arise throughout the 7 life of the project. 8 Mr. ALLAN HANSON: From a migratory bird 9 perspective, we feel that the information provided by the 10 Proponent is adequate to allow us to establish the baseline 11 conditions on site, but we have proposed additional 12 monitoring to be carried out in the future to allow us to 13 understand the impacts of land-based blasting on coastal 14 birds. 15 And from an adaptive management 16 approach, we would take that new information and revise the 17 guidelines for blasting. 18 The reason why we do not know the 19 effects of blasting on those coastal birds is that information is not contained in the literature. We have 20 21 different species at different distances from the shore. We 22 have them on top of the water; we have them under the water. 23 We have questions with regard to the 24 intensity of the blast and how much of that sound would be 25 removed by the buffer and how much attenuation there would

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1 be over distance.

2 So from an adaptive management approach, 3 we take a precautionary approach. We make our decisions 4 based on the best available information, and we constantly strive to have new information to revise our guidelines. 5 6 Dr. JILL GRANT: While we're on the topic 7 of migratory birds, can you give us an idea of how important 8 this area is as a fly-away for migratory birds? 9 Mr. ALLAN HANSON: The peninsula Digby 10 Neck in total is a natural migration corridor for birds 11 travelling north and south. The specific 120-hectare site, 12 in and of itself, is not overly important, but it is part of 13 that connectivity. 14 And with regard to the importance of a 15 specific site, Brier Island, for example, would be more important because it's the land terminus or the first point 16 of land, so birds will congregate there versus the rest of 17 18 Digby Neck, where they're just moving through during 19 migration. 20 Dr. JILL GRANT: And are you able to give 21 us an idea of when birds are migrating through? Are they 22 migrating over land, over water, how close to the shore? 23 Is there any kind of generalizations 24 that we should understand about that? 25 Mr. ALLAN HANSON: With regard to bird A.S.A.P. Reporting Services

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migration, it's very specific to the individual species and, 1 2 to some degree, weather conditions, so there's no general 3 answer to that question. 4 Dr. JILL GRANT: In your presentation, 5 you talked quite a bit about coastal conditions and the 6 concerns about whether there's adequate information 7 provided. 8 Can you give us an idea of the conditions in the summer? 9 10 You talked quite a bit about winter 11 conditions, and the project proposes that there won't be 12 ships coming in during the worst of those conditions, but 13 when you give the averages, we're wondering what the 14 implications are for the times when the ship is likely to be 15 coming in, which is during the fall, summer, spring period. 16 So what are the extremes there that 17 would be, of issue? 18 Mr. GARY LINES: In connection with the 19 spring and summer months, certainly we're looking at less values than we focussed on in the submission. 20 We did focus 21 on the winter months. If the Proponent wants even more 22 detail on that, we can provide it. I don't have it at my 23 fingertips this morning. 24 The conditions, however, tend to be less as far as wave height, on average, and typically wind speed, 25 A.S.A.P. Reporting Services

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1 as well, so we can certainly provide that. We've noted in 2 the submission data sets that they can be used to actually 3 get all of those conditions for those. The main reason we focussed on the 4 5 winter months was to try to build a sense of what the total 6 condition is like across that area and to not discount 7 severe conditions simply because it happens to fall in the 8 months that they may not be operating, so we just wanted to make sure that that was covered in the submission. 9 10 Dr. JILL GRANT: Thank you. 11 You spoke about the sediment ponds and 12 concern about the capacity for which they would be designed 13 and, in discussions the other day, it was quite clear that 14 the ponds would be kept at the level necessary to meet the 15 requirements for operating during a drought year, so they would be kept at the kind of maximal level required for 16 17 operational purposes, which could mean that in an extreme 18 storm event they will have to flash over. 19 So I wonder what concerns you might have 20 about the mobilization of fine particles in the ponds in 21 those extreme conditions, and you mentioned also about the 22 residuals potential from blasting. 23 Does your analysis give us any 24 indication of what the potential concerns would be there? 25 Ms. MARIA DOBER: At this point, we've

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1 asked the Proponent to provide additional information with 2 respect to the blasting residues that might be expected to 3 be retained within the sedimentation ponds, and we don't 4 have that information at our fingertips. 5 However, should there be an overflow of 6 the sedimentation ponds, yes, it is entirely possible that 7 both particulate matter as well as some of the contaminants 8 in terms of nitrites and potentially ammonia would also be 9 captured within that. 10 So that is one of the reasons why we've 11 asked for this additional information, so that we can get a 12 better sense of the potential for that to happen and the 13 potential impacts associated with that so that monitoring and mitigation measures can be developed specifically to 14 15 deal with those issues. 16 Dr. JILL GRANT: Thank you. 17 I noticed in your earlier submissions, 18 or perhaps it's in the recent one as well, concerns about 19 decommissioning; whether sufficient information is provided about the decommissioning of the facilities to give 20 21 sufficient information to determine the effects on a long-22 term basis. 23 What's your view on that? 24 Ms. MARIA DOBER: I think the submission talks about some potential options that are available in 25 A.S.A.P. Reporting Services

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1 terms of decommissioning and reclaiming the land. We 2 provided that information again as examples of what things 3 might be considered. It's not an area that Environment Canada 4 would be directly involved in at that stage of the project, 5 6 but we would be certainly willing to provide any assistance 7 to those agencies that would be involved in that instance. 8 Dr. JILL GRANT: Thank you. 9 And I noticed in the earlier submissions 10 from Environment Canada that there were some questions 11 raised about the suitability of this site given the 12 proximity of SARA-listed species and of rare and endangered species on the site. I believe the earlier submission asked 13 14 why the site be chosen, given the presence of those species 15 in the vicinity. 16 I wonder if you have any further comment 17 on that. 18 Mr. ALLAN HANSON: With regard to species 19 listed under SARA that Environment Canada has the mandate 20 for managing, that is restricted to the Harlequin duck, 21 which, during the winter of 2006, two individual birds were seen 200 metres west of the western boundary. 22 23 So from an Environment Canada 24 perspective, there is limited impact on species at risk. 25 The two individuals were seen there, and

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1 there's no indication from our survey data that this is a 2 traditional wintering site. 3 There are other areas along Digby Neck 4 where you'll have 60 to 80 birds wintering year after year. 5 As well, I would also mention that in Nova Scotia the 6 number of wintering Harlequin ducks ranges from between 7 three to five hundred birds, so the sighting of two 8 individual ducks does not create great cause for concern. And with regard to provincially-listed 9 10 species, Environment Canada has supported the recommendation of the Nova Scotia Department of Natural Resources to set 11 12 aside a conservation buffer area or exclusion zone that 13 would protect those provincial species at risk, the plants. 14 Dr. JILL GRANT: In the earlier 15 submission, there were some comments as well about concerns about fragmentation of forest habitat. 16 17 Do you have any further comment on that? 18 Mr. ALLAN HANSON: In general, 19 Environment Canada has concerns with regard to the fragmentation of mature forests because there are certain 20 21 bird species that require large blocks of habitat. 22 And in discussion with the Proponent and 23 with regard to the information that they provided on the 24 birds that are using the site plus the type of habitats, 25 it's Environment Canada's opinion that there are not... The A.S.A.P. Reporting Services

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1 classic definition of interior mature forest does not exist 2 on the site. 3 The stand age is a mean age of 49 years 4 and the species structure is also not there, so we're not 5 concerned about the loss of this forest habitat affecting 6 migratory birds. Dr. JILL GRANT: Thanks. 7 8 And if I might just follow up on the 9 concerns about emissions, air emissions. 10 Obviously some particular things trigger 11 the response to suggest that we need further information on 12 that, so could you give us an idea of the kinds of concerns 13 that would lead to the advice that we need much more information about the emissions from the heavy equipment and 14 15 the ship loading? 16 Ms. MARIA DOBER: I think our submission 17 has indicated that we don't necessarily see a large issue 18 with respect to air quality. What we have recommended, that 19 in order to get a full accounting of the emissions from the 20 project that we would recommend that the emissions from 21 engine sources be analysed and considered. 22 Part of what Environment Canada is doing 23 within Atlantic Canada is participating in an inventory of 24 emission sources from marine vessels. And certainly, in 25 projects like this, if that full accounting is done, then we A.S.A.P. Reporting Services

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have a much better understanding of what the overall 1 2 implications may be from vessel traffic in general. 3 Dr. JILL GRANT: Thank you. Is it okay 4 for me to ask a question of Bilcon? 5 Mr. Buxton, is the information on the 6 emissions from heavy equipment and this ship as it's idling, 7 as it's loading and unloading, can... Or, sorry, just 8 loading, can you provide that information? 9 Mr. PAUL BUXTON: Yes. I was just making 10 that note, that we'd be pleased to provide that information. 11 Dr. JILL GRANT: Can we have a date by 12 when you will be able to give us that information? 13 Mr. PAUL BUXTON: It would have to be the 14 29th or 30th. Thank you. 15 Dr. JILL GRANT: Thank you. 16 Dr. GUNTER MUECKE: Could I just ask for some clarification of terms, just so that I'm absolutely 17 18 sure what they mean? 19 You mentioned peak significant wave 20 height 9.6 metres. What, exactly, is "peak significant wave 21 height"? 22 Mr. GARY LINES: I might go back to the 23 definition of "significant wave height", which is defined as 24 an average of the highest two-thirds of waves over a period 25 in a particular scenario.

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1 And why that's chosen that way is that's 2 typically the sort of wave and wave energy that marine 3 vessels are in when on the ocean, would experience more. 4 There's quite a bit of wave action, a lot of mixing of trains of waves, and in our definition we 5 6 can relate that significant wave height to wind much more 7 easily than trying to account for every single wave value 8 that's out there. 9 Peak significant wave height is simply 10 the highest value of that group rather than taking an 11 average. 12 Dr. GUNTER MUECKE: Just to make sure I 13 understand, peak significant wave height means it is 14 possible at that location, at some stage, for a wave to 15 reach that height? Mr. GARY LINES: That's correct. 16 I might 17 also add that it's not the highest possible wave. 18 Dr. GUNTER MUECKE: It isn't. 19 Mr. GARY LINES: Yeah, it's not the 20 maximum wave possible. It's the highest of the one that's 21 most likely to be experienced at that location. 22 Dr. GUNTER MUECKE: And when you generate 23 that, can you also generate the maximum? 24 Mr. GARY LINES: There could be a maximum 25 available, yes, although the occurrence of that is a very A.S.A.P. Reporting Services

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1 small percentage, usually much less than 10 percent of the 2 time that it'd even occur that you'd get the maximum. 3 That's why we tend to stay with the significant wave 4 heights. They're much more frequent. 5 Dr. GUNTER MUECKE: Yes, okay. Т 6 understand that now. 7 The other, in terms of definition of 8 meteorological terminology, is in terms of forecasts, you 9 say warnings and worded forecasts, versus forecasts. Just 10 for me to be clear, when you refer to the... Maybe I'll tell you what I understand. 11 12 Mr. GARY LINES: Yes. Dr. GUNTER MUECKE: And then you correct 13 14 Is that the 48-hour forecast basically says there's a me. 15 storm coming, there's going to be a lot of rain, unusual 16 It's a general forecast. amount of rain. Is that correct? 17 Mr. GARY LINES: That's correct. 18 Dr. GUNTER MUECKE: And 12 to 24 hours 19 before the event, you will actually predict millimetres of 20 precipitation? 21 Mr. GARY LINES: Yes. When we refer to a 22 warning, it's if we believe the amounts are going to hit a particular value over a period of time, we'll issue a 23 24 warning saying this amount over this particular period of 25 time.

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1	We may, through the 48 hours, actually
2	put some amounts on precipitation, and they may not hit the
3	warning level. So we may still put in, to give you a solid
4	example, we've got rain the next two days. We're looking at
5	five to ten millimetres of rain overall. It doesn't hit the
6	warning level, but it enters as an amount. When we hit a
7	certain warning level, that's when we put out those amounts
8	at the warning level.
9	Dr. GUNTER MUECKE: Thank you. That
10	clarifies it.
11	You have provided us with wave height,
12	and their probability, particularly for the wintertime
13	period. I assume that this is for current conditions. Is
14	it possible to project these for future conditions? I
15	assume that in climate change that these values will change.
16	Mr. GARY LINES: Yes. Some research has
17	been done within Environment Canada to look at wave heights
18	over the North Atlantic Basin, and has noted that there is
19	an increase in wave height generally, with climate change.
20	The value is not significantly high.
21	We're talking, in terms of significant waves, on average
22	possibly half a metre, over the span of the next hundred
23	years or so. So it's not a huge change expected there, over
24	that broad basin.
25	I'm not aware of any work specific to
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1 the Bay of Fundy relating to that, so if someone was to ask 2 me, "What do you expect with these wave heights over the 3 next while?", I would have to refer back simply to the work 4 in the broader North Atlantic Basin, and would caution 5 people that it may or may not apply directly. 6 That's the current sort of state of the 7 affairs with understanding where wave heights are going. 8 Dr. GUNTER MUECKE: So, but just in a 9 generalized sense, at the moment you're saying that at the 10 current time wave height of one and a half metres can be 11 expected 55 percent of the time. With climate change, what 12 you would see is an increase from 55 percent to some other 13 value which is difficult to... Mr. GARY LINES: More likely, in a 14 15 general sense, that the 1.5 on average would increase, but I wouldn't see larger than half a metre, based on the research 16 17 in the North Atlantic Basin. 18 Dr. GUNTER MUECKE: But that would mean, 19 sorry to belabour the point, but wouldn't that mean that for 20 the 1.5 metre wave the frequency would increase? 21 Mr. GARY LINES: We... 22 Dr. GUNTER MUECKE: I mean, the 23 probability of 55 percent. 24 Mr. GARY LINES: Possibly, but I can't 25 conclusively say that. I'll have to go back and look. A.S.A.P. Reporting Services

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Dr. GUNTER MUECKE: On a different topic, 1 2 in your submission you indicate that what is variably called 3 the buffer zone or the environmental protection zone of 30 4 metres proposed by Bilcon may not be sufficient. 5 Could you give us an indication of the 6 width of the buffer zone that you would like to see? 7 Mr. ALLAN HANSON: First, let me preface 8 my remarks by saying that the 30-metre buffer zone that 9 oftentimes is applied to water courses and water bodies has 10 been developed specifically in relation to surface run-off, removal of nutrients and sediments, and we don't believe 11 12 that it's appropriate in all cases for protection of 13 wildlife habitat, so those creatures that require an 14 riparian zone, nor is it appropriate in terms of protecting 15 habitat that's beyond that buffer. 16 A 30-metre buffer zone is relatively 17 narrow when it comes to protecting this coastal bog, because 18 within 30 metres we have a lot of blow-down. 19 As well, we are not only dealing with 20 nutrient transport, but we're trying to protect and buffer 21 the conservation area from mobile organisms, et cetera. 22 So we, Environment Canada, supports Nova 23 Scotia DNR's recommendation that the buffer zone be 100 24 metres and definitely not 30. 25 Dr. GUNTER MUECKE: Thank you. A.S.A.P. Reporting Services

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1 I'm coming back to atmospheric 2 conditions, but sorry about switching back and forth. In 3 your submission you indicate that fog conditions exist over substantial period, particularly in the summer months. 4 5 We are still trying to determine, and we 6 haven't received an answer from Bilcon yet, as to what 7 constitutes fog conditions in terms of blasting. So just so 8 I have the information, once we get a Bilcon response, what 9 does, in the context of the percentages that you have given, 10 what would you consider fog conditions, in terms of visibility, obviously, right? 11 12 Mr. GARY LINES: Right. In the 13 submission, we provided information as specific to Yarmouth, 14 and we provided percentages based on what we call IFR 15 conditions. That refers to instrument flight rule It goes back to aviation terminology to 16 conditions. 17 determine various ceiling and visibility restrictions for 18 aircraft. 19 In the case of the percentages, what we typically look at is that for IFR conditions it means cloud 20 21 ceiling less than 1,000 feet above ground, and a visibility of less than three miles. 22 Dr. GUNTER MUECKE: Sorry, I missed that. 23 Three miles? 24 25 Mr. GARY LINES: Three miles. And the A.S.A.P. Reporting Services

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percentages we provided, just to refer to it, that there 1 2 were upwards of, in through that summer period, upwards of 3 157 hours where that condition existed at Yarmouth. 4 Our concern had to do with the fact 5 that, again going back to what we hear from the Proponent on 6 what conditions are limited that way, it is fairly clear 7 that there are quite a few hour where those conditions 8 exist, and that was the definition that we were using in the 9 submission. 10 Currently, I think the other related 11 item to do with thermal inversion, or the thing to point out 12 there, is that you've got guite a bit of variability 13 possible. You could have a thermal inversion, yet no fog present, and you could have the other, some of the other 14 15 conditions happening, as well. 16 So there's some variability around that, 17 but just to give you an idea of, give the Proponent and the 18 Panel and idea of time, that's how we use the definition. 19 Dr. JILL GRANT: Just one question to 20 follow up. Does Environment Canada release information on 21 thermal inversions on a daily basis? Could the Proponent 22 somehow find out that information, that a thermal inversion 23 exists that day? 24 Mr. GARY LINES: There are several possibilities. One is that we do launch radiosonde balloons 25 A.S.A.P. Reporting Services

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1 and measure the atmosphere twice a day at various locations 2 in Atlantic Canada. 3 My caution there would be that because 4 the balloon launch is not at Digby Neck and the marine 5 condition that exists along the coastline, you could have 6 quite a bit of a different thermal inversion scenario there 7 than you would have at the actual balloon site that we do 8 regularly. 9 To actually confirm thermal inversion, 10 there's several ways to do it. Actually, the cheapest way to do it is actually just to launch a radiosonde measure. 11 12 And that's one possibility for monitoring the situation 13 there. There are other technological approaches 14 15 you can use, but that's certainly, from our perspective, the 16 least expensive, if you want to look at it that way. Dr. GUNTER MUECKE: Coming back to fog 17 18 conditions. 19 Mr. GARY LINES: Yes. 20 Dr. GUNTER MUECKE: Do you have any 21 indications from your data, you're using Yarmouth as your 22 base station? 23 Mr. GARY LINES: Yes. 24 Dr. GUNTER MUECKE: In a relative and 25 general sense, is this portion of Digby Neck equivalent to A.S.A.P. Reporting Services

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1 fog conditions likely to be more severe, less severe, or 2 more frequent or less frequent? Any ideas on that? 3 Mr. GARY LINES: Typically, the fog 4 conditions are related, especially in the summertime, to 5 ocean temperatures, and consistently, I think the 6 temperature regime is relatively close, but you will have 7 situations where the water can be warmer in the Digby Neck 8 area than in around Yarmouth. It really is quite reliant on 9 sea surface temperature. 10 To that extent, there could be some 11 variability there, but I think in the long term, not a 12 significant amount. So I do think that Yarmouth is 13 relatively representative of what you can see there. 14 Dr. GUNTER MUECKE: Thank you very much. 15 Could I just change over to looking at 16 blasting residues, which you have identified as a concern, 17 which should be addressed? 18 The Panel has voiced the same concerns, 19 and it's not a question but more of a request that I have 20 here, and that is does Environment Canada have expertise in this field which could assist, in terms of blasting 21 residues, that could assist us in defining what the problem 22 23 is and how severe the problem could be? 24 Ms. MARIA DOBER: From an environmental 25 quality perspective, yes, we have expertise that would look A.S.A.P. Reporting Services

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1 at the toxicity of the contaminants that we would expect to 2 see from blasting residues, so the nitrites and the ammonia, 3 and my understanding is that yesterday, when DFO took an 4 undertaking to come back with information related to the blasting residues, that they had actually indicated that 5 6 they would work with us to do that. 7 So we are more than happy to do that. 8 Dr. GUNTER MUECKE: Thank you. 9 Dr. JILL GRANT: Just a couple of other 10 questions about the climate change question. 11 Can you give us an idea of what we would 12 expect in the way of changes to wind speed as a result of 13 climate change, or if we would expect any increase or decrease in fog frequency as a result of climate change? 14 15 Mr. GARY LINES: Both those aspects, we 16 haven't engaged recently in research to get specific 17 numbers, either for wind or fog; however, I'll make some 18 general comments around conditions expected with climate 19 change. 20 And I think this applies generally - in 21 other words, more globally - although it does have a local 22 impact. We are seeing, from the global climate models, the 23 tendency towards a shift in storm tracks, and the 24 terminology is poleward. In relation to us, it would be 25 tracking more to the west of Atlantic Canada.

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1 What that implies is storm tracks and 2 wind systems that indeed could end up funnelling through a 3 basin like Bay of Fundy more dramatically than they have in 4 the past, although that is a bit of speculation on our point at this point. We haven't actually studied that. 5 6 But we are looking at some studies that 7 are indicating more frequent storms, and that will have an 8 impact on occurrence of wind, and more intense storms. And 9 in fact, the studies are really pointing to the fact that if 10 there are, indeed, increased storms, that it will actually 11 be the more intense ones that are increasing. 12 That implies stronger winds. However, 13 as I say, we haven't gone after specific winds and studied 14 that specifically. 15 In the case of fog, as I say, referring 16 back to a comment I made earlier about the predominant 17 production of fog in the summertime being related to sea 18 surface temperatures, there's still a bit of a question in 19 the scientific community on which way that will go with fog. 20 Generally, oceans are warming. This his 21 has a general impact on sea surface temperature, but a regional one is still difficult to nail down. 22 In other 23 words, are the temperatures going to raise in the Bay of 24 Fundy? We're not sure. 25 If they do raise, that could cut down on

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1 the frequency of sea fog, advected sea fog, but again, we 2 have not gone down that road to see specifically how that 3 will impact on fog in the future. But there could indeed be 4 changes, but they could shift either way, on fog. 5 Dr. JILL GRANT: Thanks. And one last 6 question about the sea birds and the 170-metre exclusion 7 zone. 8 There's nothing in the Proponent's 9 proposal about what might be done if rafts of sea birds stay 10 in the area for a long time, as they can sometimes, feeding in a particular area. What's your view about scare tactics 11 12 or other things that might be used to get those birds to 13 move? 14 Mr. ALLAN HANSON: Under the Migratory Bird Convention Act, it's illegal to harass or disturb 15 16 migratory birds, so they would need to have a permit to 17 purposely scare those birds out of the area. 18 Dr. GUNTER MUECKE: Coming back to the 19 permit, is that for one time, or is it blanket? 20 Mr. ALLAN HANSON: The nature of those 21 permits can vary among proponents. For example, we will 22 give scare permits to blueberry growers which would cover an 23 entire season. However, I would liken this scenario to aquiculture, where we have some aquiculture operations that 24 have gone into known areas where sea ducks and coastal birds 25

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1	have traditionally used, and we've not given scare permits
2	there because the birds were there first.
3	Dr. GUNTER MUECKE: Which brings me to
4	loons. Could you just outline how important this particular
5	coastal area is in terms of the loon population wintering,
6	and coming back to scare tactics, loons are special, as far
7	as you're concerned. So what is the likelihood of getting
8	permits for that?
9	Mr. ALLAN HANSON: With regard to birds
10	using the off-shore areas during the, well, actually during
11	the entire year, we have different species at different
12	times of the year, and they're using different parts of that
13	habitat.
14	So we would want to have minimal impact
15	on those birds. In the submission, they talked about
16	physiological damage, but we would also be concerned about
17	impacting their behaviour, and that's why the monitoring
18	program would be established; to determine what impacts
19	blasting has on those birds, not only inside a 170-metre
20	buffer, but outside of that buffer.
21	If the noise is not abrupt, the birds
22	may not even react behaviourally to that noise, and in that
23	case, it's not an issue. But we would take the issuance of
24	a permit to scare birds away very seriously. If those birds
25	were using those areas specifically for feeding, then any
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1 time you scare birds away from their favourite feeding areas 2 you're having an impact on the birds. 3 So we do not issue scare permits very 4 lightly. We have to have a full understanding of the request, the alternatives to that request, and the impacts 5 6 on the birds. 7 Dr. GUNTER MUECKE: Thank you. That 8 clarifies it very nicely. 9 Coming back to the first part of my 10 question, how important is this area in terms of loons 11 wintering? 12 Mr. ALLAN HANSON: I think the specific 13 location of the quarry is not of critical importance to loons, but the entire shoreline is. 14 15 The birds are going to be using the 16 entire coastline, so that's the nature of our concern, would 17 be just birds moving in and out of the area, and that's why we have suggested that additional monitoring take place in 18 19 the future, to understand the impacts of the activities on 20 the birds. 21 THE CHAIRPERSON: I just have one 22 question for you. Yesterday, we had a presentation by two 23 women who live close by, and they were referring to their 24 experiences with some geological commercial enterprises 25 close to them.

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1	And I don't think it's overstating it
2	too much to say that there was a sense of despair, or they
3	were distraught. And because the even that had taken place
4	close to their homes was such that it was not behaving the
5	way it was expected to behave.
6	Now, you've made a very thorough and
7	informative analysis, and presuming from that you make
8	recommendations which we pass on, and this project is
9	approved, then there is the presumption that everything that
10	is agreed to will come about.
11	I'm coming to the subject of enforcement
12	of regulation.
13	How do you respond to people, like the
14	two women yesterday? In other words, we do the best we can
15	to evaluate it at the front end, we put in all sorts of
16	recommendations for monitoring and regulation and so forth,
17	and then approval comes forward.
18	And then there is the expectation that
19	all those rules will be followed, everything will happen the
20	way we expect it to, and according to them, I have no
21	knowledge of whether they're exaggerating or not, and they
22	really weren't criticizing this project directly, it was
23	really an experiential thing.
24	But what kind of advice do you give to
25	those people? Because there were people sitting in the
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1 audience here who were looking at this project who are 2 against it, and might be willing to agree to it if it was 3 clear that all of this mitigation and so forth was to come 4 about. So some of that responsibility falls on you, your Department that is, and Provincial Departments and so forth. 5 6 What kind of advice do you give them, 7 under these circumstances? 8 Ms. MARIA DOBER: From Environment 9 Canada's perspective, the mitigation measures that are 10 accepted and endorsed throughout this Environmental 11 Assessment process, we would take them very seriously, and 12 those that are related to our mandated areas, we would 13 follow up on a regular basis to ensure that those issues 14 that we had asked to be done, or that monitoring that we had 15 asked to be done, was in fact done. 16 In terms of actual enforcement, we do 17 have some specific legislative requirements that if the 18 project was to proceed the Proponent would have to comply 19 with those, and there is an Enforcement and Compliance 20 Policy specifically with respect to the Fisheries Act - I'm 21 sure there's one with respect to migratory birds, as well -22 that our enforcement officers use in terms of assigning 23 priorities for their activities in any given year. 24 And this project, should it proceed, 25 would be, again, added to the list of projects that they

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would go and do inspections of on a regular basis, and 1 2 ensure that the Proponent was complying with our 3 legislation. 4 So from that perspective, we do take our 5 follow-up very seriously. 6 THE CHAIRPERSON: What sort of recourse 7 does a citizen have? And assuming that you go and find out 8 that the process is not being conducted in the way that it 9 was anticipated or agreed to, are there penalties, and what 10 are those penalties? Ms. MARIA DOBER: I'll speak to the 11 12 enforcement side, and maybe Barry can talk to the EA process 13 side. 14 Certainly under the legislation citizens 15 have a right to contact our Department in terms of any 16 issues that they believe are in violation of those 17 regulations, and those complaints are taken very seriously, 18 and they're investigated by our enforcement personnel. 19 With respect to those issues that 20 Governments have agreed to do but are not necessarily 21 enshrined in legislation, I'll ask Barry to speak to that. 22 Mr. BARRY JEFFREY: Yes, I quess inasmuch 23 as the Government as a whole, Provincial and Federal, will 24 be in the position of responding to the Panel's report and 25 recommendations, certainly, yes, the Government takes it

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1	very seriously and looks at the implementation instruments
2	it has at its disposal to actually ensure that the
3	mitigative measures or monitoring measures that were
4	identified are, in fact, put in place.
5	There are some instruments, such as the
6	ones that have triggered this Federal assessment in the
7	first place. Fisheries and Oceans and their habitat
8	authorizations, Transport Canada and their navigable waters
9	authorizations, those are two examples of Federal tools and
10	instruments that can be used to help ensure the
11	recommendations that have been put forward and are accepted
12	are also, in fact, implemented.
13	So conditions could be place on those
14	kinds of permits, as an example.
15	However, there's other things for which
16	perhaps there is no instrument in legislation that can be
17	readily used to implement the outcome of the Environmental
18	Assessment, and in those cases we've seen examples of where
19	performance agreements, perhaps, were negotiated with a
20	Proponent, or perhaps bonds were put in place to ensure
21	certain matters were handled appropriately, or some other
22	kind of agreement that was negotiated on almost a
23	contractual basis.
24	I've seen those kinds of scenarios, as
25	well, in other Environmental Assessments where they were
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looking to ensure that the measures identified and accepted 1 2 were implemented, and implemented effectively, with 3 recourses offered if things did not unfold as had been 4 anticipated, based on effects-monitoring results. 5 THE CHAIRPERSON: Would your Department 6 consider penalties as severe as shutting an operation down 7 until there is conformity? And if you do consider that, 8 does that happen very often? 9 Ms. MARIA DOBER: Our Department, the 10 regulations that our Department would apply to this project 11 don't require permits. There are prohibitions. I'm not 12 sure that gives us the ability to actually shut a facility 13 down. 14 There are certain aspects of the 15 facility, for example if there are emissions or effluents from the sediment retention ponds, that it takes some period 16 17 of time to resolve, then that particular aspect of the project we can have some influence on, and that may, in 18 19 turn, influence the entire project. 20 But in terms of actually shutting a 21 project down, that is not within the bounds of our legislation for this project. 22 23 THE CHAIRPERSON: Thank you. 24 Mr. Buxton, over to you. 25 Mr. PAUL BUXTON: Thank you, Mr. Chair.

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1 PRESENTATION BY ENVIRONMENT CANADA - QUESTIONS BY THE 2 PROPONENT 3 Just first of all, perhaps a little 4 clarification. You noted in your presentation that we had 5 said somewhere in our document that we would not clear vegetation between May 1st and August the 31st. I think that 6 7 is correct; in one instance we did. 8 In all other instances, we said we would 9 not clear in any nesting season, and I want to make it clear 10 that we do not intend to clear in any nesting season. That date got in there inadvertently, in one of our tables, but 11 12 that the intent is very clear; that we will find out 13 specifically what the entire nesting season is for the area, 14 and we will not clear in that time. 15 Also, a point of clarification with 16 respect to environmental preservation zones. In our 17 discussions yesterday with NSDNR, we were specifically 18 talking about hundred-metre zones in the coastal zone area. 19 Is that what you were referring to today? 20 Mr. ALLAN HANSON: Yes, it was. 21 Mr. PAUL BUXTON: Thank you. With 22 respect to blasting residues, the Panel has asked us for an 23 undertaking, and we have something, I believe, put together 24 on that, which is due in fairly shortly. 25 And just one last comment with respect

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1 to... You had some observations with respect to the 2 environmental design and operational considerations for 3 sediment retention ponds. I just sort of wanted to make the 4 point here that I think that at the beginning of our process we were concerned and had as a priority the storage of water 5 6 for our wash process, and our concern, in fact, was much 7 more geared to the retention of water and providing sufficient surface water and being able to store it in order 8 9 to carry out our wash process. 10 We did go on from there and look at the 11 possibilities of various significant storms of 100-year 12 return and what that would do, would it over to, et cetera. 13 But I would like to make the point, and there will be a further undertaking, there is one under way 14 15 at the moment that the Panel has asked for, and that 16 contains a little bit more information, and perhaps I could 17 ask you to have a look at that as well when it comes in. 18 But the catchment area is 143 hectares 19 that involves the sort of retention ponds. 64 hectares of 20 that is actually above the quarry. It is fresh water, it's 21 clean water. 22 That flows down through the site, as it 23 always has, and that has been part of our calculations with 24 respect to retention for our operation but, in fact, if we 25 got into or a severe storm were predicted, it has always

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been our intention to bypass the water, that clean water 1 2 from outside the quarry, straight into the Bay. It would 3 not go into any part of the operation. 4 So I think that when our undertaking 5 comes in to the Panel that may shed a little bit different 6 light on the capacity of the sediment retention ponds to 7 retain the water. 8 --- Pause 9 Thank you Mr. PAUL BUXTON: That's fine. 10 very much, Mr. Chair. 11 THE CHAIRPERSON: Thank you, Mr. Buxton. 12 Now we'll turn to the audience, but 13 first, are there any Government interventions, Federal or 14 Provincial, that would bring a question forward? If not, 15 are there any individuals? 16 Mr. Morsches and Mr. Marcocchio. Ms. Peach, did I see your hand go up. 17 18 PRESENTATION BY ENVIRONMENT CANADA - QUESTIONS BY THE PUBLIC 19 Ms. JUDY PEACH: Yes, Mr. Chair. 20 Mr. BOB MORSCHES: Doctor, concerning the 21 weather, which the Environment Canada mentioned today, about 22 three times a day I get the weather, about the only weather 23 you can get in this area along Digby Neck down to Brier Island is from Digby and then one from Brier Island. 24 25 However, let's say they predict a partly A.S.A.P. Reporting Services

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cloudy day and winds are rather calm. 1 2 Well, what happens about two hours 3 later, along the coast, let's say, from Sandy Cove to Whale Cove, which is past Whites Cove, going all the way down to 4 Brier Island, you end up with fog. Then you have heavy 5 6 winds and very heavy rain. 7 That's two hours after you get a 8 prediction for the day. 9 I have information that along the Digby 10 Neck down along Long Island and Brier Island is very 11 susceptible to immediate climate change, and you never know 12 about it because you got the ... 13 THE CHAIRPERSON: Mr. Morsches, this is heading towards a question, is it? 14 15 Mr. BOB MORSCHES: I'm sorry? 16 THE CHAIRPERSON: This is going towards a 17 question? 18 Mr. BOB MORSCHES: Yes, it is. 19 THE CHAIRPERSON: Okay. 20 Mr. BOB MORSCHES: It's a point that I 21 would let you know that there's going to be a discussion by Mr. John Scott, who takes the weather daily at Sandy Cove, 22 23 and he will be presenting on Saturday at 1300 a little bit 24 about this dramatic weather change along Digby Neck. 25 THE CHAIRPERSON: So there was no A.S.A.P. Reporting Services

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1 question. 2 Mr. BOB MORSCHES: Pardon, sir? 3 THE CHAIRPERSON: I was looking for a 4 question, but one never surfaced. 5 Mr. BOB MORSCHES: No, I just wanted to 6 inform the Chair. 7 THE CHAIRPERSON: Okay. Thank you very 8 much. 9 Mr. Marcocchio. 10 Mr. BRUNO MARCOCCHIO: Thank you, Mr. 11 Chair. Bruno Marcocchio of the Sierra Club of Canada. 12 Just to clarify a question that the 13 Panel put to Environment Canada about the capacity for 14 enforcement and the concern that residents had, I wonder if 15 Environment Canada would both discuss with us here and 16 undertake to provide to the Panel a record of the 17 prosecutions and convictions for Fisheries Act violations 18 over, let's say, the last 10 or 15 year period. 19 Ms. MARIA DOBER: We don't have that 20 information with us today, but I'm sure that that's 21 something that we can provide to the Panel. 22 Mr. BRUNO MARCOCCHIO: Thank you very 23 much. 24 THE CHAIRPERSON: Ms. Peach. Ms. Dober, 25 how long do you think that would be?

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Ms. MARIA DOBER: We'll get it to the 1 2 Panel before the close of the hearings. 3 THE CHAIRPERSON: So the 29th, perhaps? 4 Ms. MARIA DOBER: Sure. 5 THE CHAIRPERSON: 29th is going to be a 6 busy, busy day. 7 So could you restate that, Mr. 8 Marcocchio, so I get it right? The number of ...? 9 Mr. BRUNO MARCOCCHIO: Prosecutions and 10 convictions for violations of the Fisheries Act which Environment Canada is charged to enforce. 11 12 I wonder, while we're here, if 13 Environment Canada might talk about their enforcement 14 capacity and the number of people they have doing 15 enforcement in the region. 16 Ms. MARIA DOBER: If I could just clarify 17 first what time period you're looking for these records for. 18 Mr. BRUNO MARCOCCHIO: I'm sorry. Let's 19 say the last 15 years. 20 Ms. MARIA DOBER: 15 years? Okay. 21 In terms of our capacity with respect to 22 enforcement, enforcement is one of the priorities of this 23 Government and, in fact, the Department is increasing its 24 capacity, both on the environmental quality side as well as 25 on the wildlife enforcement side.

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1 I don't have the exact numbers with me, 2 but we can certainly provide those as well. 3 THE CHAIRPERSON: Thank you, Mr. Marcocchio. Ms. Peach, then Mr. Mullin. 4 5 Ms. JUDY PEACH: I understand that 6 Environment Canada's boss and one of the people that the 7 Panel would be making recommendations to would be the 8 Environment Minister of Canada. 9 If you were asked to make 10 recommendations to your ultimate boss, the Environment 11 Minister of Canada, on this project, sort of if you were 12 doing the Panel's job just within the areas of expertise, 13 you know, your own areas of expertise, do you feel confident 14 in the amount of information provided by the Proponent in 15 the EIS and their responses as well as the level of understanding you think the Proponent has of the site, the 16 17 climactic conditions of the site, the sensitivity of the 18 site? 19 Would you feel confident that you could 20 make a recommendation to approve the project with conditions 21 that you felt could be enforced? 22 Would you feel confident in an approval 23 recommendation? 24 Ms. MARIA DOBER: I think it's important 25 to understand that our role here within this particular A.S.A.P. Reporting Services

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1 process, we don't have a decision-making role with respect 2 to this particular project. I think that in our submission it's 3 4 clear that, should the Proponent provide the additional 5 analysis and information that we have asked for and commit 6 to a monitoring, mitigation and follow-up program, that the 7 position of the Department would be that any environmental 8 impacts could be mitigated with that additional information and that monitoring program. 9 10 Ms. JUDY PEACH: Can I ask a follow-up? 11 So do you feel that within the Panel's 12 time constraints, which I believe is 90 days after the end 13 of this hearing, do you feel they are in a position to 14 make... I'm just wondering if there should be more time 15 allotted in some way because there seems to be a lot of 16 information missing. 17 So are you pretty confident that the 18 Panel can make an accurate decision or recommendation in 19 that time period? 20 Ms. MARIA DOBER: That's something that 21 the Panel will have to decide. I mean, I can't speak for 22 their ability to do that in that time period. 23 THE CHAIRPERSON: Thank you. Mr. Mullin, 24 and then I think I saw Sister Barbara's hand go up. 25 Mr. DON MULLIN: My question was A.S.A.P. Reporting Services

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sufficiently covered by Mr. Marcocchio. 1 2 THE CHAIRPERSON: Okay. Is Sister 3 Barbara here? Okay. There she is. 4 SISTER BARBARA: Good morning, and thank 5 you very much for your presentation. I found it most 6 informative. 7 I just wondered if Environment Canada is 8 aware that Bilcon of Nova Scotia is a US-based company. 9 Ms. MARIA DOBER: Yes, we are. That 10 information was in the documentation. SISTER BARBARA: And do your rules apply 11 12 to outside companies, as well? 13 Ms. MARIA DOBER: Our regulations would apply to the activities that are taking place within 14 15 Canadian jurisdiction. 16 SISTER BARBARA: Great. I just wanted to 17 further say that about 30 years ago we had a very bad storm 18 in Nova Scotia. Perhaps some of you know about it, the 19 Groundhog Day storm. 20 And I, at the time, worked for the 21 Federal Public Works, and we had a lot of damage done in 22 Diqby Neck and Islands. We have a lot of wharves and 23 breakwaters that were washed away, and also a boat that was 24 moored in St. Mary's Bay ended up on the other side of Digby 25 Neck Highway 217 in a marsh and stayed there for quite a

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1 time. 2 And that was not a very severe storm, 3 but there was still a lot of damage. And given that the storms are getting 4 5 more severe and the hurricanes are intensifying and we have 6 storms on Diqby Neck year round, winter storms qo from 7 December to May. 8 We've had storms in May, and now we're 9 on hurricane season from June 'til November. 10 Given the fact that the ice is melting 11 and the waters are warming, I wonder if someone could provide an educated guess as to what damage a Category 5 12 13 hurricane similar to the one that struck New Orleans a few 14 years ago would have on the residents of Digby Neck should 15 it suffer a direct hit, as Digby Neck is only two miles 16 wide. 17 Does anyone hazard a guess what damage 18 it would do in 2007? Mr. GARY LINES: Maybe I can speak to 19 that with a little bit of detail, recognizing the fact that 20 21 Nova Scotia certainly has experienced land-falling hurricanes before, most recently with Hurricane Juan through 22 23 the Halifax area. 24 We have some sense of the amount of 25 damage that certainly that category of hurricane would do A.S.A.P. Reporting Services

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across the province, and particularly as it relates to the 1 2 marine climate storm surge. 3 Just to refer back to the Groundhog Day 4 storm briefly, looking at a scenario there where the storm 5 tracked to the west of the Bay of Fundy, and just to make 6 the quick comment that that's not an uncommon occurrence. 7 The uncommonness of the Groundhog Day 8 storm had to do with the strength of it and the fact that 9 the intensity of it really did create a storm surge 10 situation, which I think was what the main damage was from. 11 The amount of storm surge in that case 12 was about 1.5 metres above the tidal level, and I would 13 guess at this point, although there's been documentation to 14 support this, that that was the main driver for damaging a 15 lot of the wharves and moving boats and so on. 16 With the case of a storm similar to 17 Hurricane Juan, that was a Category 3 once it hit the 18 coastline. We did look at storm surges in that scenario in 19 about the same range, so it is not unreasonable to assume that that kind of a storm surge event could happen again. 20 21 As well, the fact that, yes, with 22 climate change we're looking at potentially having tropical 23 features be more intense, meaning generally that the peak 24 wind value would be higher, which also implies potentially a 25 higher storm surge scenario.

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1 Certainly the kind of damage that we 2 could see out of that type of a feature through that area 3 would certainly be at the same level that we've experienced 4 before with the Groundhog Day storm and may even be more 5 intense. 6 THE CHAIRPERSON: Thank you. 7 SISTER BARBARA: Just another question. 8 THE CHAIRPERSON: Is this a follow-up, 9 Sister Barbara? 10 SISTER BARBARA: Mmm-hmm. 11 What would be the impact on the 12 residents of Digby Neck and Islands if it were hit by the 13 Category 5 hurricane in 2058, the life expectancy of the 14 proposed White Point Rock Quarry and Marine Terminal when 15 the land mass is now exposed to the elements as basalt rock 16 has been shipped to the US? 17 Could you comment on that? 18 Mr. GARY LINES: It would be a little 19 difficult to comment on it because, again, I'd have to 20 speculate on what the actual land mass would actually look 21 like as to the scenario coming from the marine environment. 22 Just to suffice to say that with those 23 factors, with climate change, more intense features, 24 potentially higher storm surge scenarios that any kind of 25 coastal infrastructure would obviously be at risk and the A.S.A.P. Reporting Services

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extent of that, however, would be based on what kind of 1 2 coastal infrastructure and how the land was actually 3 oriented at that time. SISTER BARBARA: Thank you very much. 4 5 THE CHAIRPERSON: Thank you. Any other 6 questions from registered participants? 7 Mr. Stanton. 8 Mr. KEMP STANTON: Yes. Just a quick 9 question. 10 You mentioned that sea level may rise 30 centimetres. How would this impact the width of the 11 12 preservation zone at the site? 13 Mr. GARY LINES: I, at this point, would 14 suggest that representatives from Natural Resources Canada 15 might be able to answer that a little more correctly because 16 it refers to topographical information that I don't have at 17 hand. 18 However, I think in applying that, if we 19 look at the 30 centimetres, I would add the comment that 20 we're talking about permanent sea level rise and that, on 21 top of that, if we look at sort of weather and storm 22 information, you would then have to sort of add more intense 23 storms and then wave action and so on so, again, deferring 24 back to the fact that you'd actually have to look at the 25 topographic situation to apply it correctly.

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1 THE CHAIRPERSON: Thank you. Ms. 2 Mitchell, did I see your hand go up? 3 Ms. LISA MITCHELL: Hi. My question is regarding the information on... 4 5 THE CHAIRPERSON: You are Lisa Mitchell? 6 Ms. LISA MITCHELL: Yes, I am. Sorry. 7 Lisa Mitchell. THE CHAIRPERSON: Yeah, just for the 8 9 transcript. 10 Ms. LISA MITCHELL: Sure. With the 11 Partnership. 12 My question is on the information on the 13 impacts of blasting on coastal seabirds. I believe that it 14 was... That you talked about the fact that there isn't a 15 whole lot of information, scientific information, on that 16 and that, through this project, there could be some 17 monitoring that might then lead through, I presume, an 18 adaptive management program that could see changes or 19 enhancements to blasting quidelines that could be used for 20 this project and perhaps for others. 21 I was wondering if you could a little 22 bit more or perhaps an example of what some of those changes 23 might be. 24 I'm just trying to understand a little 25 better what it might mean to the Proponent if it was A.S.A.P. Reporting Services

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1 determined that there were significant impacts of blasting 2 on coastal birds. 3 Mr. ALLAN HANSON: There's a couple of 4 issues here with regard to blasting, one being the time of 5 the year. 6 And in their submission, the Proponent 7 has indicated that they won't be blasting during, quote 8 unquote, the winter months. And if we knew better what 9 period of time that is, then we would know which birds would 10 be in the area related to when a blast may occur. With regard to guidelines, what we would 11 12 envisage is that if birds are being disturbed during a blast 13 outside of the 170-metre buffer zone, then that buffer zone could be expanded so they couldn't blast when birds were in 14 15 that area. 16 And under that scenario, we would give a 17 permit for them to gently move the birds out of the area. 18 Oftentimes what we'll do is use a boat to gently herd birds 19 out of an area. And in that case, we would look at the 20 21 impacts of the birds being exposed to the blast versus being 22 mildly disturbed and pushed out of the area. But that's the 23 sort of activity that we would envisage. 24 The other thing that is unclear to us is 25 the actual noise amounts. Perhaps they could increase the A.S.A.P. Reporting Services

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1 amount of blasting mats. 2 The other thing that a question arises 3 to us with regard to the impacts of blasting noise is 4 whether or not there would be background noise. 5 If there's a moderate amount of 6 background noise, then the impact of the blast noise would 7 be less to those birds, so those are the sorts of things 8 that we would want to work with the Proponent in terms of 9 our monitoring program so we could have an adaptive 10 management approach. 11 Ms. LISA MITCHELL: Okay. Just a quick 12 follow-up, or just a clarification. 13 So if I understand correctly, one of the 14 key means, perhaps, of addressing the impacts on the birds 15 would be to try and remove the birds. Is that correct? 16 Mr. ALLAN HANSON: It wouldn't be to 17 remove the birds. It would be to make sure that the birds are at a distance from the blast site so that they would not 18 19 be disturbed by the noise. Ms. LISA MITCHELL: Okay. So creating 20 21 their buffer zone. Okay. Thank you. 22 THE CHAIRPERSON: Thank you, Ms. 23 Mitchell. 24 I think we have time maybe for one or 25 two more questions. Mr. Moir, I think, first, and then that A.S.A.P. Reporting Services

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1 gentleman right there.

2 Just a moment. The lady with Sorry. 3 the green sweater, perhaps. And if we have... We'll see. 4 Mr. ANDY MOIR: Andy Moir. Just a very 5 quick follow-up to that last answer. 6 Who is actually going to be there from 7 Environment Canada while we're waiting for this blast to 8 happen to determine if the birds are being gently nudged 9 along, or who is actually... Or is it going to be the 10 company that's going to be in charge of gently nudging the 11 birds along? 12 Mr. ALLAN HANSON: The actual individuals 13 from Environment Canada would have to be determined, but 14 with regard to monitoring activities, Environment Canada 15 wants to develop these monitoring programs in consultation 16 with the Proponent so that we have a good understanding of 17 what monitoring activities are actually being done, both in 18 theory and in practice. 19 THE CHAIRPERSON: Okay. We have two more 20 questions. The woman right behind Andy Moir. 21 Please identify yourself. 22 Ms. CAROL LITTLETON: My name is Carol 23 Littleton, and I am a registered participant. 24 THE CHAIRPERSON: I'm sorry. Thank you. 25 Ms. CAROL LITTLETON: Like the two women

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1 yesterday, I am quite sceptical and worried about 2 enforcement activities. 3 As a taxpayer, I'm also worried about 4 the extra costs to the taxpayers if all this examination of 5 the mitigation required and the monitoring is carried out. 6 It seems to me that it's going to be quite a costly thing. 7 And my question is, is it ever possible 8 to pass on some of those extra costs to the company? 9 Mr. ALLAN HANSON: With regard to the 10 monitoring for coastal birds and land birds on site, that monitoring will be done by the Proponent or their 11 12 designates, and Environment Canada will be providing 13 expertise in working in consultation with them. 14 So we, within Environment Canada, will 15 not be doing that monitoring per se, but we will be 16 reviewing the monitoring program and that way, when we get 17 the results back, we will have full faith in those results. 18 With regard to enforcement, I would just 19 like to add that the enforcement of the Migratory Bird Convention Act and the Species at Risk Act is ongoing, and 20 21 it's the Proponent's responsibility to adhere to those 22 Regulations. 23 And with regard to reporting perceived 24 violations, we encourage members of the general public to 25 call the 1-800 Environmental Emergencies Reporting Line if A.S.A.P. Reporting Services

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1 they ever see activities that they believe to be in 2 violation of those Acts. 3 Ms. CAROL LITTLETON: Thank you. 4 The second question is, is Environment 5 Canada the body that sets up and maintains weather stations 6 in Nova Scotia? 7 Mr. GARY LINES: Yes, that's correct. 8 Ms. CAROL LITTLETON: Can you explain to 9 me why so many weather stations were closed down in the last 10 few years so that there are now very large intervals between 11 the stations? 12 I recently set up a weather station of 13 my own in Annapolis Royal because the weather forecasts that 14 we get in the area come from Greenwood, which has an 15 entirely different situation, and so far monitoring of 16 temperatures, wind speeds, just about everything about the 17 forecasts is completely useless and does not correspond. 18 My station was set up by a 19 meteorologist, so I do have confidence that my data is quite 20 good, and it is on the internet and available for anybody. 21 Mr. GARY LINES: In reference to the 22 monitoring network, yes, over the past period, I'd say the 23 past 10 or 15 years, there have certainly been changes to 24 the monitoring network, both the number and the type of 25 monitoring that we do.

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1	It is basically driven by two items.
2	One is how much we actually can afford to run in this
3	country as far as monitoring, and that's across the entire
4	country, not just in one province or one region, as well as
5	our confidence in being able to accurately monitor the
6	atmosphere to support the programs that we run at
7	Environment Canada, predominantly our weather forecasting
8	service.
9	It has been determined that if you
10	couple those two together, we have the monitoring network we
11	have now.
12	Would we all like to see more monitoring
13	sites in Canada? I'm sure.
14	What it ultimately comes down to is can
15	we continue to support the weather service that we have with
16	the monitoring that we have and, actually, at this point we
17	can.
18	But like yourself, I'm also a taxpayer
19	and, yes, I would love to see more monitoring done in this
20	country, but it does come down to balancing the two things
21	of how much service we can provide and how much money we can
22	afford for the networks.
23	Ms. CAROL LITTLETON: Thank you very
24	much.
25	THE CHAIRPERSON: Thank you, Ms.
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1 Littleton. And the final question. 2 Are you a registered participant? 3 Mr. WILLIAM LANG: Yes, I am, sir. 4 THE CHAIRPERSON: Good. 5 Mr. WILLIAM LANG: William Lang, Green 6 Party of Nova Scotia, L-a-n-q. 7 My question follows along with the 8 enforcement and penalties. I heard Environment Canada refer 9 to themselves as Federal authority on enforcement, 10 regulations and mitigation measures, and I heard them refer that they wouldn't have the authority to shut the plant 11 12 down, but I was just confused. 13 I actually didn't hear any references to 14 penalties, and if you could just describe penalties for 15 failure to meet regulations. 16 Ms. MARIA DOBER: There are a variety of 17 penalties that are available to the Department under our various pieces of legislation, and I don't have those pieces 18 19 of legislation here with me today, but we can certainly 20 provide that information if the Panel would like to have it. 21 THE CHAIRPERSON: Sure. 22 Mr. ALLAN HANSON: And as a point of 23 clarification, in a general sense under the Migratory Bird 24 Convention Act and the Species at Risk Act Environment 25 Canada enforcement officers do have the ability to shut down

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an operation that's resulting in a violation of those Acts. 1 2 Mr. WILLIAM LANG: Thank you very much. 3 THE CHAIRPERSON: Mr. Lang, you're asking 4 for legislation. Be more specific for me so that I can get 5 it down on paper. 6 Mr. WILLIAM LANG: For the actual 7 penalties that will be incurred by the Proponent if they 8 fail to meet regulations. 9 THE CHAIRPERSON: Thank you. 10 Ms. MARIA DOBER: I would like to point out that the penalties are ultimately decided by the Courts, 11 12 but there is a range that they are able to enforce. 13 Mr. WILLIAM LANG: So we're talking about 14 fines and... 15 Ms. MARIA DOBER: Yes. 16 Mr. WILLIAM LANG: Okay. Thank you. 17 THE CHAIRPERSON: Okay. I think Dr. 18 Muecke has one more question. 19 Dr. GUNTER MUECKE: Actually, two. 20 You referred the Proponent to an 21 enlarged database in terms of rainfall statistics and you 22 mentioned the 1870 to 2006 database, which is more 23 comprehensive and results in different predictions in terms 24 of 100-year storms. 25 Of importance also in terms of storage A.S.A.P. Reporting Services

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in the sediment ponds is the rainfall during drought years, 1 2 and so my question is, is it possible or is the information 3 available in the database as to the worst 100-year drought? 4 Mr. GARY LINES: I would actually have to 5 look for that 'cause I actually, honestly, have not been 6 asked that question before. 7 However, I would strongly suspect it is 8 there 'cause basically the database handles annual 9 precipitation and it would indicate the dry years as well as 10 the wet ones. 11 Dr. GUNTER MUECKE: Could I ask you for 12 that information? 13 Mr. GARY LINES: As an undertaking? 14 Dr. GUNTER MUECKE: Yes, lease. 15 Mr. GARY LINES: Yeah, we can do that. 16 Yes. 17 Dr. GUNTER MUECKE: Another concern of ours is, obviously, the release of pollutants, particularly 18 19 hydrocarbons. 20 And in your submission, you indicated 21 that even lower amounts of release can have considerable impact on migratory birds, seabirds, et cetera. 22 23 Now, when it comes to mitigating spills 24 along the coastline, one of the important things is the 25 characteristic of the coastline itself, obviously, in terms A.S.A.P. Reporting Services

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1 of clean-up; how efficiently and quickly one can clean up 2 these spills. And that requires information on the physical 3 characteristics, the biological characteristics, of the 4 shoreline; not only at the site but obviously because of the spreading of the pollutant in the adjacent areas. 5 6 Does Environment Canada feel comfortable 7 with the level of information that has been provided in the 8 EIS regarding these shoreline characteristics, and do you 9 feel that it is at a level which would allow efficient and 10 quick remediation if a spill should occur? Ms. MARIA DOBER: There were no issues 11 12 raised by our emergency specialists who reviewed the 13 documentation. 14 What I would like to indicate to the 15 Panel is that our Department does follow a process called Shoreline Characterization Assessment Techniques whenever 16 17 there is a spill, and they actually go out and do look at 18 the area and determine the likelihood of where a spill will 19 end up, and what the shoreline characteristics are, so that that will facilitate the types of cleanup that they can do. 20 21 And that's done in conjunction with a 22 whole variety of different agencies involved in emergency 23 response. 24 THE CHAIRPERSON: Okay, then. Mr. 25 Buxton, I'm asking if you have any additional questions A.S.A.P. Reporting Services

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1 because of Dr. Muecke's additional questions. You're okay? 2 Mr. PAUL BUXTON: No, thank you, Mr. 3 Chair. 4 THE CHAIRPERSON: Okay. We will 5 terminate this session now and we'll take a 15-minute break, 6 but I'd like to thank Environment Canada for a very, very useful presentation. Thank you all. 7 8 --- Recess at 11:02 a.m. 9 --- Upon resuming at 11:20 a.m. 10 THE CHAIRPERSON: Ladies and gentlemen, 11 could I ask you all to identify yourself with your name, 12 your affiliation and to spell your name if it's the least 13 bit problematic for the transcriber to get it? 14 Mr. KIM MacNEIL: Kim MacNeil, Director 15 of Environmental and Natural Areas, Management and Protection Division, Department of Environment and Labour. 16 17 Mr. BOB PETRIE: My name is Bob Petrie. 18 I'm the Regional Manager of the Environmental Monitoring and 19 Compliance Division for the western region, and it's P-e-t-20 r-i-e. 21 Mr. BRUCE ARTHUR: I'm Bruce Arthur, 22 District Manager for the Yarmouth office of Environmental 23 Monitoring and Compliance Division. 24 Mr. ANDREW MURPHY: I am Andrew Murphy, 25 I'm Manager of the Air Quality Branch for the Department of A.S.A.P. Reporting Services

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1 Environment and Labour, the ENAM Division 2 Ms. BARB RYDEN: Barb Ryden, Supervisor 3 of Air Monitoring and Reporting, Air Quality Branch. 4 Ms. DARLENE FENTON: Darlene Fenton, I'm 5 the Regional Manager for the Central region of ENC. 6 Mr. SCOTT LISTER: Scott Lister, L-i-s-t-7 e-r, Regional Hydrogeologist, Kentville office. 8 Mr. DARRELL TAYLOR: Darrell Taylor, 9 Environmental Analyst, Water and Wastewater Branch, ENAM 10 Division, Halifax. 11 Mr. JOHN DRAGE: John Drage, and the last 12 name is spelled D-r-a-g-e. I'm a hydrogeologist with Nova 13 Scotia Environment and Labour, in the Halifax office. 14 THE CHAIRPERSON: Okay. Thank you all, 15 now I believe you have a presentation for us? 16 PRESENTATION BY THE NOVA SCOTIA DEPARTMENT OF ENVIRONMENT 17 AND LABOUR - VARIOUS PRESENTERS 18 Mr. KIM MacNEIL: I'd like to begin the 19 presentation by thanking the Panel for the opportunity to 20 present today and to begin, I would like to discuss briefly 21 the mission of the Department of Environment and Labour. 22 The mission is to protect and promote 23 the health and safety and people, and the protection of 24 property. 25 It's done through the Public Safety and A.S.A.P. Reporting Services

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1 the Occupational Health and Safety divisions to protect and 2 promote healthy environment, employment rights and consumer 3 interests and public confidence in pension services and in 4 the alcohol and game sectors. 5 Part of the Department's mandate is that 6 we are the lead provincial department for environmental 7 protection and management. 8 We develop regulations, policies 9 quidelines and programs. We oversee environmental 10 monitoring networks, manage databases and information, as 11 well as providing professional advice to the public and 12 government, as well as monitoring for compliance. 13 The Department is also the lead agency 14 for Occupational Health and Safety, as well as Public 15 Safety. 16 However, today's presentation will deal 17 exclusively with the environment side of the Department. 18 Within the Department, there are two 19 environmental divisions, one is the Environmental of Natural Areas Management Division, and the other is the 20 21 Environmental Monitoring and Compliance Division. 22 Myself and Mr. Petrie today are going to 23 briefly review some functions of these two divisions within 24 the Department of Environment, before we get into the formal 25 presentation.

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1 The Environmental and Natural Areas 2 Management Division or ENAM as it's known, consists of six 3 branches, which are: Environmental Assessment; Protected 4 Areas Branch... 5 We have 33 wilderness areas and 15 6 nature reserves, as well as other protected areas across the 7 Province. 8 There's also Air Quality, which is a 9 very active and growing branch. Then there's a Waste-10 Resource Management Branch, which deals mostly with solid 11 waste. 12 We have a pollution prevention branch, 13 which deals with hazardous substances, and we have a Water 14 Resource Management Branch, that deals with surface water, 15 groundwater, drinking water as well as wastewater. 16 Mr. BOB PETRIE: The Environmental 17 Monitoring and Compliance Division are responsible for the 18 majority of field operations relating to environmental 19 protection for the Department. 20 We do this through a network of local 21 offices in the regions. In the western region, we have three district offices, the closest one for this Project 22 23 being based in Yarmouth. We also have offices in 24 Bridgewater and Kentville, who look after their assigned 25 areas.

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1 Our primary activities in the Monitoring 2 and Compliance Division consists of firstly evaluating 3 applications for approval of proposed projects under the 4 Part V approval process in the Environment Act. 5 We also conduct the inspection and 6 monitoring of those approvals, when they become operational 7 of course. 8 We conduct enforcement activities and 9 also respond to public issues, complaints and inquiries, and 10 basically serve as a local service point for the 11 Department's programs and services. 12 Mr. KIM MacNEIL: Next, I would like to 13 discuss the steps and review process for our own Department. 14 To begin with, we review the Environmental Impact Statement 15 and provide comments to the Panel, which has already been 16 done. 17 I guess I would like to note that this 18 presentation is a brief review of the work that we have done 19 thus far on the application that's before the Panel, and 20 full written comments that detail specific issues have 21 already been provided. 22 After the comments are provided to the 23 Panel, the Panel would make their decision to reject or 24 approve with conditions. 25 The Minister responds to that Panel A.S.A.P. Reporting Services

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1 report, and if the E.A. is approved, the terms and 2 conditions of the release are prepared. 3 The next step, again if the E.A. is 4 approved, there would be a second detailed review of the proposal under the Part V of the Environment Act, and this 5 6 is commonly known as the Industrial Approval. 7 So it's a secondary approval process, 8 and should the E.A. be approved following that Industrial 9 Approval, should the Industrial Approval make its way 10 through, there is a compliance monitoring with inspections 11 that would take place and be the responsibility of the 12 Department. 13 Now I'd like to review the comments 14 provided by three of the branches within the Environmental 15 and Natural Areas Management Division, the first report 16 being from the Water and Wastewater Branch. 17 As previously stated, they are responsible for groundwater, surface water, drinking water 18 19 and wastewater. 20 The main potential impacts on drinking 21 water and groundwater include reduced groundwater levels 22 that can potentially affect nearby wells, and blasting that 23 can cause changes in the amount of water the well produces 24 and can result in temporary siltation of nearby wells. 25 These effects can be managed through

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1 groundwater and water well monitoring plans, as well as 2 contingency plans to address impact to any water well. 3 The main potential impacts on surface 4 water include siltation of watercourses and marine waters, 5 and reduced flows in watercourses that could impact any 6 aquatic life. 7 These potential impacts could be managed 8 through mitigation measures such as sedimentation ponds, and 9 following guidance on the erosion and sedimentation control 10 and on Pit and Quarry Development Guidelines that the 11 Department has. 12 Surface water monitoring plans for the 13 quality and quantity would be also developed. Also, 14 contingency plans for spills and upset conditions would be required. 15 16 And I believe that the Department will 17 provide additional detailed comments on this topic tomorrow, 18 we are scheduled. 19 The next comments are from the Air 20 Quality Branch. 21 They are responsible for the management 22 and protection of outdoor air quality. They look after the air quality regulations and the pollutants regulated under 23 24 those regulations. 25 They also operate a provincial air A.S.A.P. Reporting Services

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1 monitoring network and in a lot of air issues, they provide 2 engineering expertise for any industrial approvals from the 3 Environmental Monitoring and Compliance Division. 4 The Proponent, from an air quality 5 perspective, would be required to summarize predicted air 6 emissions, as well as noise level and predict the impact of 7 these emissions. 8 The Proponent would also be required to 9 submit a monitoring plan, and then develop a management plan 10 based on predicted impacts and monitoring. 11 Now, some of this work would be done at 12 the environmental assessment stage, but other aspects are 13 done during the industrial approval stage, should we get to 14 that point. 15 The third and final branch to comment on 16 the Environmental Impact Statement is the Pollution-17 Prevention Branch. 18 They're responsible for pollution-19 prevention initiatives, as well as well as green 20 procurement. 21 They look after reduction of toxic 22 substances as well as the management of contaminated sites, dangerous goods, hazardous wastes, pesticides and pests, and 23 24 industrial emergency response planning. 25 Their comments have been that the

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1 storage of fuels and other petroleum products must meet the 2 petroleum management regulations, that the storage and 3 handling of dangerous goods and waste dangerous goods must 4 meet the dangerous goods management regulations, and that 5 the facility must have an emergency response plan to deal 6 with releases of these substances. Thank you. I'm going to... 7 Bob is 8 going to continue with the rest of the presentation. 9 Mr. BOB PETRIE: I will give a brief 10 overview again of our division and how it operates in a bit 11 more detail on the monitoring and compliance side. 12 The monitoring and compliance division 13 is organized in a network of 12 district offices, which I 14 mentioned three are located in this area. 15 Across the province, we have 16 approximately 80 inspectors and conduct anywhere from 10,000 17 to 12,000 inspections annually on facilities that we 18 regulate. 19 A number of core programs occupy the 20 bulk of our time and effort in this division. 21 Our core programs include drinking water 22 management; drinking water safety; as well as wastewater 23 management, both from on-site sewage as well as municipal 24 wastewater. 25 Solid waste as well as contaminated site A.S.A.P. Reporting Services

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1 management are other core programs we administer. 2 We also have a very large role in public 3 health management and mental health, again going back on our 4 mandate and drinking water and sewage management. 5 Most applicable to this situation is 6 that we are the monitor and the regulator for industrial 7 activities in this area, which can range to anything from 8 the aggregates industry to more industrial-manufacturing 9 type of industries. 10 We mentioned earlier that following an 11 environmental assessment process, should a Proponent successfully complete that, they go on to what we call the 12 13 Part V approval or the industrial approval, which is 14 evaluated in our division using local engineering staff as 15 well as local hydrogeologists and technical staff. 16 This approval process is a very 17 technical review looking at the core environmental issues of 18 the facility. 19 Our application... In our application 20 process, we would require typically detail that may not have 21 been needed in the environmental assessment process, right 22 down to the specific design specifications, for example if 23 something were I guess described conceptually in the E.A. 24 process, we would look at that and at the level of design 25 engineering in the industrial approval process.

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1 Typically, the information we require 2 during this evaluation includes process description and 3 engineering plans; as well as project-specific environmental 4 management plans; descriptions of all wastes, emissions and potential adverse effects; monitoring and mitigation plans; 5 6 exceedance response protocols and contingency plans; as well 7 as rehabilitation plans. 8 This application process can also, as 9 needed, involve consultation with other federal and 10 provincial agencies on specific items where we may require 11 input or expertise. 12 Historically, this division has had some 13 historical involvement in this project, which I'll give a 14 brief overview of. 15 Initially, we became involved in this 16 project back in 2002, when the Proponent came forward first with an application for an industrial approval for a 3.9-17 18 hectare quarry, beneath the threshold for an environmental 19 assessment. 20 At that time, that proposal did meet the 21 requirements of our Pit and Quarry Guidelines and the 22 approval process, and an approval was issued. 23 As part of that approval, we did require 24 the Proponent to form a Community Liaison Committee and 25 conduct public information efforts during the initial phase A.S.A.P. Reporting Services

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1 of that, the objective being mainly to require a mechanism 2 for information exchanged and dissemination, both between 3 the public and the Proponent on this issue. 4 Other significant facets of our historical involvement have included the investigation of 5 6 siltation reports from the site, which did not result in any 7 further action. 8 The review of a specific blasting plan 9 for this site in consultation with Fisheries and Oceans 10 Canada... 11 That issue being mainly centred around 12 the potential impacts of blast repercussions on marine 13 mammals, Fisheries and Oceans Canada was the primary 14 reviewer of that. 15 Towards 2003, 2004, we did receive 16 notification that there was an ownership change, and the original approval was issued to a company called Nova Stone, 17 18 however the rights to the property were transferred to 19 Bilcon, and there was no transfer the approval to Bilcon at 20 that time, no need for that. 21 In October 2004, the Part V approval for 22 the site was cancelled because the entity, the company that 23 it was originally issued to, no longer had authorization to 24 the property. 25 The issues that the EMC division A.S.A.P. Reporting Services

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1 highlighted reflect also the issues identified by the ENM 2 division. 3 In summary, these would be effects of 4 the site or of the operation on groundwater; local drinking 5 water wells and wastewater from the site, both in terms of 6 discharges from the sedimentation ponds; as well as any on-7 site sanitary wastewater that might require management from 8 the facility buildings; erosion and sedimentation issues; 9 air quality and blasting issues requiring management. 10 These issues are typically addressed in 11 conditions of approval that we would issue consistent with 12 our Pit and Quarry Guidelines. 13 There are other... In addition to the 14 Part V industrial approval, there are other potential 15 approvals that the Proponent may need to obtain from our 16 division. 17 As I mentioned, the issue of how the on-18 site sanitary wastewater will be treated, whether that is in 19 a small plant or through an on-site sewage disposal system, 20 would require a review and approval from our division. 21 Also, the ultimate decommissioning of 22 the Project infrastructure and long-term site monitoring and maintenance activities would have to meet with our approval 23 24 as well. 25 Depending on the nature of water use at

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1 the site, an approval for water storage or withdrawal may 2 also be required. 3 In addition to that and as part of the 4 Part V approval process, our Pit and Quarry guidelines and 5 conditions of approval require that if blasting is to be 6 conducted within 800 metres of residences off site, then 7 permission is required from those residence owners in order 8 to do this, and the 800-metre clearance is a standard 9 requirement for quarries in Nova Scotia. 10 In addition, the division would also be 11 seeking more information on existing drinking water quality 12 in the area from domestic wells in support of obtaining 13 good baselines on the quality of drinking water in those wells before activity is commenced. 14 15 That summarizes the issues identified by 16 the EMC division and the ENM division, and thank you for 17 I will take questions. this take. 18 PRESENTATION BY NOVA SCOTIA ENVIRONMENT AND LABOUR -19 OUESTIONS BY THE PANEL 20 THE CHAIRPERSON: Thank you very much. 21 We do have a few questions here, and I have a feeling that 22 questions are going to run through lunch. 23 So I'd like to take you back with an 24 historical question for the moment which is could you tell 25 us in more details about the complaints that were related to A.S.A.P. Reporting Services

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1 the siltation of the 4-hectare quarry, and how Environment 2 and Labour dealt with it? 3 Mr. BOB PETRIE: I can tell you what I 4 recall from that time. The complaints I believe originated during periods of heavy precipitation, heavy rainfall. 5 6 THE CHAIRPERSON: I'll get you to pull 7 that closer to you. 8 Mr. BOB PETRIE: Certainly. How is that? 9 Okay. 10 They occurred during heavy precipitation 11 runoff periods. We investigated jointly with Fisheries and 12 Oceans Canada. Our staff is based in Yarmouth, and 13 Fisheries and Oceans does have a local office so whenever it 14 makes sense, we can get assistance from that on issues that 15 we have in common. 16 At those times, our inspectors, our 17 federal inspectors were unable to verify any exceedance of suspended solids concentrations. 18 19 It was acknowledged that there was a 20 high volume of run off during those periods, but no 21 incidences of release of substances causing an adverse effect was confirmed. 22 23 THE CHAIRPERSON: Simply siltation? 24 Mr. BOB PETRIE: Well, siltation would be 25 a substance potentially causing an adverse effect, however

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1 we didn't... We weren't able to verify or obtain any 2 evidence that indicated siltation in excess of the levels we 3 would want to see. 4 Dr. GUNTER MUECKE: And what time period 5 was involved between your inspection and the supposed 6 incident? Mr. BOB PETRIE: I don't have this 7 8 information with me at this time. 9 THE CHAIRPERSON: Were there any other 10 complaints or indications of non-compliance from that 11 particular operation? 12 Mr. BOB PETRIE: Generally speaking, we 13 would often receive concerns expressed from the public in 14 this area about the operation. 15 As I recall at this moment, these were 16 the only incidences where there was alleged non-compliance 17 so... 18 Dr. GUNTER MUECKE: Thank you. 19 THE CHAIRPERSON: You're involved... 20 Your Department was involved in the creation of the CLC in 21 association with this Project. 22 What exactly was your involvement over 23 and above of dictating that it should in fact be formed? 24 Did you oversee it in any way? Did you participate in it or...? 25

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1 Mr. BOB PETRIE: No. Our main objective 2 in requiring the CLC was to ensure that there was a vehicle 3 for information exchange and the communication of questions 4 and answers about the project in both directions, for the 5 community and the Proponent. 6 While we attended some CLC meetings, we 7 did not serve as the Chair or as the manager of that 8 committee. 9 THE CHAIRPERSON: Do you in general or 10 would you have done specifically any sort of monitoring of 11 the quality or functionality of the CLC? 12 Is it doing what you hoped that it would 13 do, that sort of thing? 14 Mr. BOB PETRIE: Well... 15 THE CHAIRPERSON: Or once it's created, 16 to you simply back off and let it run? 17 Mr. BOB PETRIE: Well, we... No, I 18 wouldn't characterize it that way. We do... We would 19 get... 20 For the meetings that we did not attend, 21 we would get regular copies of the minutes of those 22 meetings, and we would stay in communication with the Chair 23 of that Committee from time to time. 24 I think in any CLC, and we do have CLCs 25 on other projects, but we wanted to serve the function for A.S.A.P. Reporting Services

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1 which it was designed. 2 Whether or not it's actually achieving 3 what we want it to is sometimes a subjective question and 4 difficult to measure. 5 Dr. GUNTER MUECKE: The CLC is supposed 6 to involve all stakeholders. Does the Department see itself 7 as a stakeholder? 8 Mr. BOB PETRIE: Certainly. Well as a 9 regulator I guess would be our role. Yes. 10 Dr. GUNTER MUECKE: Then can you explain 11 why... I mean you previously said that departmental 12 representatives were present at times, but were not part of 13 the CLC. Could you explain? 14 Mr. BOB PETRIE: Well sometimes, as I 15 recall, the CLC would meet on very specific issues, which may or may not involve the mandate of the EMC division. 16 17 Again, while we stayed in touch with 18 what was happening at the CLC, it wasn't always necessary 19 for us to be present. 20 Again, we wanted to make sure that 21 information was flowing from the company to the public, and 22 vice-versa, and that was our primary objective. 23 Dr. JILL GRANT: Do you see the CLC as a 24 representative body for the community and what mechanisms 25 are there for those who sit on the CLC to get information A.S.A.P. Reporting Services

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(QUESTIONS BY THE PANEL) beyond themselves, to some wider public? 1 2 Mr. BOB PETRIE: Pardon me? How would 3 the CLC communicate ---4 Dr. JILL GRANT: Yes. 5 Mr. BOB PETRIE: ---to the broader 6 public? 7 Dr. JILL GRANT: Yes. Mr. BOB PETRIE: Okay. 8 9 Dr. JILL GRANT: How does that happen? 10 What's the mechanism? 11 Mr. BOB PETRIE: Generally how a CLC 12 functions is actually determined by the committee itself, 13 and any methods that they would use to communicate or give 14 information to the broader public would be agreed to by the 15 Committee. 16 Dr. JILL GRANT: So it varies then from 17 CLC to CLC in terms of... 18 Mr. BOB PETRIE: I would say that's the 19 methods used. 20 Dr. JILL GRANT: Yeah. 21 Mr. BOB PETRIE: That would be a fair 22 statement. 23 Dr. JILL GRANT: How would you 24 characterize the effectiveness of the CLC that was in place 25 on the 4-hectare quarry in this case?

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(QUESTIONS BY THE PANEL)

1	Mr. BOB PETRIE: Given that the Project
2	was in a phase where it was not in an environmental
3	assessment process and not in a formal public consultation
4	process, you know, I believe that information about the
5	Project was exchanged.
6	I guess that's a difficult question to
7	answer, how effective it was, and that may be better left to
8	the company and the community to judge.
9	THE CHAIRPERSON: If you were overseeing
10	a number of projects and they all had their equivalent of
11	CLCs, would your Department be able to qualify them? Would
12	you have information that would tell you whether a CLC was
13	functional or dysfunctional or marginally useful or socially
14	impacted in the sense that it was unable to carry out its
15	activities?
16	Would you know that? Would that kind of
17	information become available to you?
18	Mr. BOB PETRIE: I guess that type of
19	information wouldn't be gathered or collated on a provincial
20	basis if I could put it that way.
21	As an example, I might be familiar with
22	any CLCs that are operating within my area and through
23	general communication with my colleagues in other areas, I
24	might get an impression, but the information I think that
25	would ensue the mostion that you ested ignit collected or
	would answer the question that you asked isn't collected or

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1 collated in that way. 2 THE CHAIRPERSON: In other words, if you 3 sat in on the meetings, you would make observations and 4 carry them back to your Department, but other than that 5 there would be no process? 6 Mr. BOB PETRIE: H'm. 7 THE CHAIRPERSON: That's correct, yeah. 8 Change of topics slightly. One of the things that concerns 9 the community here is what has been referred to as quarry 10 drift, which is that Bilcon owns a certain property which is 11 now under review for the development of a marine quarry, but 12 it also has additional property or properties, and one... For example, one large piece of land adjacent to the present 13 14 quarry. 15 It's been suggested, there are rumours 16 suggesting that eventually Bilcon will expand into this 17 other property. 18 Now the question is what would prevent 19 that from happening, if anything? 20 If the environmental review process... 21 This Panel makes a recommendation, the Project goes forward 22 and at some point, it decides it wants to expand its quarry, 23 what would it prevent it from doing that? 24 Is there anything to prevent it from 25 doing that? Is there a process involved?

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1 Mr. BOB PETRIE: I'll just make an 2 initial comment that any expansion of an approved 3 undertaking beyond that which was contemplated in the 4 environmental assessment for the approval would require 5 subsequent approval. 6 THE CHAIRPERSON: Would that approval be 7 ministerial approval, would it be in-house approval, would 8 it be a full scale public transparent regulatory process? At what level would that occur? 9 10 Mr. BOB PETRIE: The Minister of 11 Environment would make a decision on the size or the change of the operation, and based on that, we would make a 12 13 decision to the extent of the consultation. 14 But, if it was decided that the 15 operation was a significant expansion, then the Minister has 16 the right to require a full environmental assessment. 17 THE CHAIRPERSON: So let me give you a 18 hypothetical. 19 Mr. BOB PETRIE: Yes. 20 THE CHAIRPERSON: The quarry is 150 21 hectares, and there's a piece of property of 30 hectares 22 adjacent to it, the request to be made, the approval could be done by the Minister with advice from his staff, and then 23 24 three or four years later, another 20 or 30 hectares could 25 go through the same process?

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1 In the sense that it could simply 2 increase in size because the size is small but cumulatively, 3 it could be a large size over 25 years or 30 years. 4 Is that a reasonable or is that a 5 farfetched scenario? 6 Mr. BOB PETRIE: Well, under the 7 environmental assessment regulations, one of the factors 8 that the Minister of Environment and Labour considers in the 9 environmental assessment decisions is the planned and 10 existing land use in the area of the undertaking, which is 11 essentially cumulative effects development. 12 Well I think in this case, the Panel 13 could make recommendations to the Minister with respect to 14 the cumulative effects element of this particular project, 15 and the Minister takes that into consideration in his decision about any project. 16 17 THE CHAIRPERSON: If the Panel had simply dissolved at the end of its advice to the Minister and five 18 19 years later, individuals might not be there or in other 20 words... 21 And also, the information would be five 22 years out of date and environmental assessment and 23 regulations would have moved on, so that asking the Panel 24 for advice at that point might not be a useful exercise. 25 Essentially the process you're

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1 describing is the Minister would be faced with a request, he 2 would on the basis of factors decide whether in fact he 3 could decide by himself, with advice from his staff, whether 4 it would go out to some kind of review, and the degree of 5 review could vary in a number of ways. 6 But presumably, it wouldn't be a joint 7 review, it would be an internal Nova Scotia review? 8 Mr. BOB PETRIE: Not necessarily. That 9 would be the Minister's decision. I can give you an example 10 of a facility just recently in metro area that changed 11 slightly the chemicals that it was dealing with. 12 In the original environmental 13 assessment, they were given a particular approval to do a 14 particular type of work. 15 That work changed, and if the work 16 changes significantly or the type of chemicals that they're 17 dealing with changes, then a new environmental assessment is 18 required. 19 For a quarry, which THE CHAIRPERSON: 20 has a given product and doesn't change what it does but 21 simply changes its size, that's much more predictable and 22 much less problematic I would guess, thereby reducing the 23 need for the complicated assessment, would you think? 24 Mr. BOB PETRIE: Well, I quess it would 25 be a judgement of the significance of that expansion.

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1 THE CHAIRPERSON: H'm. Gunter? 2 Dr. GUNTER MUECKE: I have experience 3 with quarry expansions, and my understanding is it's not 4 exactly rare that once a quarry has been established, that it asks for expansion and how they have been dealt with 5 6 and... 7 I think that I am aware, but not 8 details, of some of these expansions in Nova Scotia. 9 Dr. JILL GRANT: I have a question. 10 Dr. GUNTER MUECKE: Sorry, I mean that as 11 a question. How have you dealt with them in the past I 12 mean? 13 Mr. BOB PETRIE: Again, when faced with an expansion, and I guess it depends on where you're 14 15 starting from because if there was a smaller quarry beneath the E.A. threshold, we would be looking at whether that 16 17 expansion from beneath the thresholds would put it above the 18 threshold and trigger an E.A. 19 If it was a project that had previously 20 gone through an E.A., again we would go back and look at the 21 assumptions that were in place and the nature and scope of 22 the project as it was proposed during the initial E.A., and 23 if it was judged to be a significant deviation or expansion 24 or change from what was originally contemplated, then we 25 would proceed through an E.A. process.

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1 I want to go Dr. GUNTER MUECKE: Okay. 2 from the hypothetical to the real, okay? Has a quarry, which has gone through the environmental assessment process, 3 4 provincial... I'm not aware of any federal. 5 But has any quarry like that been 6 granted an extension and how was it handled in that specific 7 case, as opposed to the hypothetical? 8 Mr. BOB PETRIE: To answer that to any 9 degree of certainty, I would have to go back and check 10 records on this. I can only speak anecdotally for the 11 12 projects I know of in my region, and we would be willing to 13 take that on as an undertaking, to provide that. 14 Dr. GUNTER MUECKE: Thanks. So let me be 15 specific as to what I'm looking for. So I'm looking for any quarries, okay, in Nova Scotia, that have undergone an 16 17 environmental assessment on a provincial scale, I realize, 18 and that have asked for an expansion after the approval, and 19 I would like to know how that approval was obtained. 20 Dr. JILL GRANT: Thank you. I have a 21 couple of questions. The first one is around inspections. 22 You mentioned that you have 80 inspectors doing about 12,000 23 inspections a year, so you're quite very busy obviously with 24 a lot of inspections. 25 I wonder if you could give us an idea of

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how often major industrial enterprises like this would be 1 2 inspected and whether it would be ... whether the inspection would be announced in advance, or is it just a surprise 3 4 visit or what exactly happens? 5 Mr. BOB PETRIE: Most of our inspections 6 are scheduled internally, but not announced to the site 7 operator in advance, unless there is some need to do so in 8 order to make arrangements for site access or safety 9 requirements. 10 So if it was deemed that in order to do 11 the inspection, we needed to gain access to a secure area or 12 make certain specific safety arrangements, it might be 13 necessary to announce ourselves ahead of time, but it is our 14 practice to not announce ourselves or ... 15 You know, to try and obtain basically 16 representative conditions when we do our inspection, given 17 the restrictions that we're under. 18 The frequency of the inspections, when 19 the project is approved, it would basically be placed on an 20 inspection schedule that frequency could vary. 21 You know, for a very low risk 22 conventional project, it might only be once a year or so. 23 For a project which is in its initial phases of construction 24 and start up and before it has gone into a routine 25 operational phase, we would want to conduct frequent

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1 inspections.

2 That would be I guess based on what is 3 happening at the site at the time. 4 It would be our practice once an 5 approval is issued shortly thereafter to meet with the 6 Proponent, go through all the terms and conditions to make 7 sure that they understand them and know how to implement 8 them, and then basically conduct a compliance inspection, probably within the first month after startup. 9 10 Again, that inspection frequency can 11 change. 12 If there are I guess emerging issues at 13 the site that need inspection or if there were complaints 14 and concerns phoned in from the public, then we would 15 respond with an inspection in an "adoc" fashion. 16 Dr. JILL GRANT: Thanks. I have a couple 17 of questions around the bog, the coastal bog here. 18 Mr. BOB PETRIE: H'm. 19 Dr. JILL GRANT: The Project proposes to 20 change the nature of the drainage into the coastal bog. 21 It's described in the assessment as an "unconfined distributed flow" coming into the bog at this point in time, 22 23 and the Project proposes to change it to a confined pipe 24 that would be feeding the bog. 25 I'm interested in your thoughts about

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1 the effects of that change in the drainage to the bog and 2 what effects it may have. 3 Mr. DARRELL TAYLOR: Perhaps I could speak to that to some degree. 4 5 The coastal bog as proposed would be 6 modified to some extent from current wetlands on the site 7 and flows that have been gathered from the site would be 8 directed to that bog. 9 Mitigation measures would be expected in 10 terms of sedimentation ponds prior to releases to that bog, 11 and therefore expectations of removal of erodable materials, 12 settling of those materials and potentially, if needed, 13 treatment in that sedimentation pond to mitigate impacts to 14 the coastal bog. 15 Is that addressing your question? 16 Dr. JILL GRANT: Actually, I think you're 17 looking at an earlier description of the project proposal. 18 Recent changes to the project description no longer have the 19 flow going through the bog as its final element, and now the 20 watershed above the road is being directed into the bog 21 through a pipe underneath the sediment pond. 22 So it's quite a change in the flow that 23 is currently going there on the site. Perhaps you haven't 24 seen the revisions to the project description? 25 Mr. DARRELL TAYLOR: I believe I did see A.S.A.P. Reporting Services (613) 564-2727 (416) 861-8720

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1 those proposed changes in the document. To be quite frank, 2 I'm not sure that I fully comprehended what was being 3 proposed. 4 There appeared to be flows going in two 5 directions, and there was some management through some 6 control structures. 7 I sat in on conversations during this 8 hearing and I still have somewhat an unclear understanding 9 of what is being proposed in that respect. 10 Dr. JILL GRANT: I can understand that. 11 We're having some difficulties with this too. 12 Would it be your understanding that if 13 drainage to a bog changes in this way from an unconfined 14 flow of cross-land from a large area to a point source 15 coming in from a pipe, that there would be an effect on the 16 bog? Mr. DARRELL TAYLOR: Hypothetically 17 18 saying, I would say there could be. It would depend on the 19 amount of land which was being drained higher in the 20 watershed and what the velocity of those flows would be 21 also. 22 Mr. BOB PETRIE: I might just add to that 23 that our Department does have a policy on wetland 24 alterations, which if an alteration is proposed, it would 25 need to be evaluated I guess for the level of impacts to A.S.A.P. Reporting Services

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1 that wetland.

2 There is a provision in this policy to 3 allow for either mitigation or compensation of the loss of 4 wetland function that can't be mitigated, and that would be 5 an option potentially available to us. 6 Dr. JILL GRANT: I want to ask you also 7 about the constructed wetland that is proposed as part of 8 the project. 9 The flows coming out of the sediment 10 ponds are going through 500 metres or linear area, and I'm 11 wondering about your thoughts about the effectiveness of 12 that kind of a feature to treat the water coming out of the 13 sediment ponds, whether you have had a chance to evaluate 14 the potential effectiveness of that given the high 15 variability and the water flow? 16 There are periods of time where there's 17 going to be no flow because water is being stored, and other 18 periods where they may be high flow because of storms. 19 I'd like your comments on the 20 effectiveness of that feature. 21 Mr. BOB PETRIE: Likely the effectiveness 22 and the detailed design of wastewater treatment features is 23 something that we would need to conduct a detailed 24 evaluation of in the Part V approval process, and they would 25 need to demonstrate to us quantitatively and through design

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1 that the wastewater treatment system on site can meet the objectives of the approval in suspended solids 2 3 concentrations. 4 Dr. GUNTER MUECKE: Could I come briefly back to inspections? But before I do that, I've been told I 5 6 should obtain a date from you regarding the undertaking we 7 have? 8 Obviously, we would like to have this 9 before the Panel... 10 Mr. BOB PETRIE: We can certainly have it 11 before the Panel closes. 12 Dr. GUNTER MUECKE: Okay. So that's a... The 28^{th} ? 13 14 THE CHAIRPERSON: The Panel will close on Saturday the 30th of June. 15 16 Mr. BOB PETRIE: Okay. THE CHAIRPERSON: The 29th is a 17 possibility. Sooner would be better, but if that's all you 18 can manage... The 29th? 19 Mr. BOB PETRIE: We can do the 29th, yes. 20 21 Okay. 22 Dr. GUNTER MUECKE: And just so we finish 23 off on inspections at least for the time being, you said 24 your inspectors don't announce themselves. 25 Mr. BOB PETRIE: H'm. A.S.A.P. Reporting Services

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1 Dr. GUNTER MUECKE: Generally speaking... 2 Now you inspect many things, but when it comes to quarries, 3 quarry operations involve blasting and so isn't it almost a 4 taking that for quarry inspections, you have to announce yourself beforehand? 5 6 Because you might show up and they're in 7 the blasting mode? 8 Mr. BOB PETRIE: For safety reasons, I 9 wouldn't want our inspectors showing up unannounced in the 10 middle of a blast obviously. 11 While I'm not an authority on blasting 12 safety per se, I would presume that if we happened to show 13 up unannounced and a blast was proposed or eminent, that the company would have appropriate notifications and safety 14 15 measures and prohibitions against unauthorized entry in place at that time, so that persons couldn't just happen 16 17 upon the site and be heard. 18 But you know, I guess I would say that 19 depending on the type of blasting schedule that they have 20 and how much certainty there is to that, we may or may not 21 need to announce ourselves on a given occasion, you are 22 right. 23 Dr. GUNTER MUECKE: To continue with 24 inspections, and I'm talking not about labour and safety, 25 okay, because as you said that is a different division

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1 altogether.

2 You do have a large coastal quarry in 3 your jurisdiction, okay, the Canso quarry. Can you provide 4 us the inspection record that you have for that quarry, 5 let's say over the last five years? 6 Mr. BOB PETRIE: That isn't information 7 that I have with me. That is something that we would have 8 to take on as an undertaking. 9 Dr. GUNTER MUECKE: Could you please 10 provide us with a date again? The 29^{th} ? 11 Mr. BOB PETRIE: Okay. 12 Dr. GUNTER MUECKE: Yes. 13 THE CHAIRPERSON: I think we're at lunchtime right now, and what I would like to do is I would 14 15 like to break until 1:10. 16 We will continue questioning at that 17 time, and that we will be followed by Natural Resources 18 Canada, plus a couple of others. 19 So unfortunately, we have fallen behind 20 once again, but... Okay. So we'll see you back here at 21 1:10. 22 --- Recess at 12:11 p.m. 23 --- Upon resuming at 1:12 p.m. 24 THE CHAIRPERSON: Ladies and gentlemen, 25 we'd like to resume now.

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1 PRESENTATION OF DEPARTMENT OF ENVIRONMENT AND LABOUR -2 QUESTIONS BY THE PANEL 3 Gentlemen, I wonder if we could start 4 the afternoon session by asking you to explain, in a bit 5 more detail, the Part V approval process? 6 Mr. KIM MacNEIL: Before we go there, I'm 7 just wondering if I could clarify a point that I---8 THE CHAIRPERSON: Yes, certainly. 9 Mr. KIM MacNEIL: ---probably didn't make 10 effectively this morning. I didn't mean to suggest... Ιt 11 was regarding the expansion of the quarry. I didn't mean to 12 suggest that we would contact the Panel in 15 years to see 13 if the expansion was appropriate. 14 What I guess was respectfully suggesting 15 to the Panel is that they can make that recommendation to 16 the Minister that the footprint that is outlined in the 17 Environment Impact Statement is the footprint of the 18 operation, and any expansion beyond that point could require 19 a full Joint Panel Environmental Assessment. 20 THE CHAIRPERSON: Thank you for that 21 clarification. That makes a lot more sense, yes. 22 Part V approval process? 23 Mr. BOB PETRIE: The Part V approval 24 process, when we enter into that, and if it is in a post-25 ENVIRONMENTAL ASSESSMENT context, generally our belief going

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1 into that is that if it's successfully concluded in 2 ENVIRONMENTAL ASSESSMENT that conceptually, you know, the 3 Project is capable of meeting the standards that we wanted 4 to, subject to detailed design and compliance with 5 conditions.

6 Administratively, it consists of an 7 application that needs to be filed with us, as well as the 8 submission of detailed engineering drawings of key features 9 of the site; for example, the sedimentation ponds, as well 10 as blasting procedures, confirmation of the consent of 11 dwellings within 80 metres, as well as any, you know, 12 monitoring, and mitigation or contingency plans.

The Part V approval itself, and this is done at a local level, primarily using the resources of our local engineers, as well as our local hydro-geologists on any ground or surface water issues.

17 The approval itself, once issued, will 18 consist of a number of terms and conditions which will 19 address all of the, I guess, key environmental effect 20 components, whether it's surface water discharge, airborne 21 particulate, blasts, vibration and air concussion, as well 22 as the requirement to submit a rehabilitation plan to us 23 within a certain period of time. The Part V approval is 24 also where the requirement for the rehabilitation bond is 25 typically enforced.

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1	The terms and conditions of these
2	approvals are enforceable, and by that, I mean in the
3	Environment Act, it states that a breach of a term and
4	condition of an approval is an offence under the Act, so
5	even if it were a requirement that wasn't in regulation, but
6	it was in the approval, if a company, you know, fails to
7	satisfy that, then it is an enforceable provision that we
8	can act on.
9	Following the issuance of, you know, of
10	the Part V approval, as I mentioned earlier, facility is
11	placed on an inspection schedule and we discussed that.
12	I'll just see if there's any other details about the
13	approval process that I might have overlooked.
14	Pause
15	And just a couple other observations.
16	There is an administrative fee that goes with the approval
17	process, but another key feature is that Part V approvals
18	are valid for a maximum of ten years, after which they need
19	to be renewed.
20	THE CHAIRPERSON: I'm sure you heard the
21	exchange this morning between us and Environment Canada when
22	we asked about follow-up monitoring, and enforcement, and so
23	forth, and I use as an example the two ladies who were here
24	yesterday afternoon.
25	I'll ask you the same question. What
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1	can you tell the assembled group with regard to a project
2	such as this; a project which has been We recommend
3	approval, it goes through your Part V process, it gets
4	underway. There are a whole series, a big long list of
5	constraints, and mitigations, and so forth, and down the
6	road, they're violated, and subtly perhaps or some maybe
7	flagrantly, it's hard to say.
8	But what encouragement or what support
9	can the assembled individuals get from this and the
10	realization that they, let's say for the worst case
11	scenario, they've got a project they don't want, but they
12	grudgingly accept it on the belief that the Province will
13	look after them; will look after the process for them.
14	How often would it be monitored, if it
15	is monitored and it's found to be wanting? If it is
16	wanting, is there a penalty? Can that penalty shut the
17	project down? Does it enforce a fine? What's involved in
18	this?
19	Mr. BOB PETRIE: In the enforcement of an
20	approval, and again, you know, the inspection frequency
21	would probably be set once the approval is issued.
22	Early on in the lifespan of the Project,
23	I think during construction and startup, we would want to
24	pay more attention to it than a facility, for instance, that
25	had been operating for a long period of time, and had

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1 established a predictable track record. We might not audit 2 a facility like that as often as a newer facility without a 3 track record. 4 We have a compliance and enforcement 5 framework that we follow when we come across violations. On the staffing side of it, our staff are appointed as Special 6 7 Constables, and are able to initiate Summary Offence 8 Tickets, or long-form prosecutions. 9 In addition to that, we also have 10 assigned to the region what we call a Compliance and 11 Inspection Co-ordinator who is an enforcement specialist who 12 acts in support of the inspectors on legal and investigative 13 matters. 14 When it comes to how we would handle 15 violations, when we become aware of a violation either 16 through our own auditing, or by a report from the public, 17 the first step that we would take is to undertake an 18 investigation, and basically look for basically evidence to 19 support that or not. 20 If a violation is confirmed, we have a 21 number of options to address that, and those range, at the 22 simplest end of the scale, from a warning ticket to a 23 Summary Offence Ticket to what we call long-form 24 prosecutions. We also have available Ministerial Orders. 25 If specific remedial work needs to be compelled of a person, A.S.A.P. Reporting Services

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that's where a Ministerial Order would be used. 1 2 The approval may also be suspended 3 temporarily, or revoked permanently for non-compliance 4 depending on the circumstances. The factors that go into 5 that decision making range... I'll back up a little bit. 6 7 You know, these recourses are subject to 8 the due diligence provisions of the Environment Act, so if a 9 person demonstrates that they took all reasonable measures 10 to prevent an offence from occurring, then that defence is 11 available to them. 12 When we are weighing what type of 13 response to use, we would look at the track record of the 14 company; whether this was a first violation or a repeat 15 violation; whether it was something that they did knowingly 16 or unknowingly; whether or not damage occurred as a result 17 of the violation; or it could be a violation of what I'll 18 call an administrative portion of the approval; for 19 instance, failing to submit a report or a plan on time. And 20 those types of factors would get weighed into what type of a 21 response we would use, whether it was a warning or a full-on 22 prosecution. 23 THE CHAIRPERSON: How often do you revoke 24 a Part V approval? How often has it happened? Can you 25 identify? Once in the last five years, or ten times in the

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1 last five years, or ...? 2 Mr. BOB PETRIE: I can only speak 3 anecdotally to situations that I'm personally familiar with, 4 without going back and doing a more comprehensive survey. 5 I do know that we have suspended a Part 6 V approval for non-compliance and, as well, there has been a 7 revocation of such an approval within the past five years. 8 THE CHAIRPERSON: So if we had to 9 categorize it qualitatively, we would say it's a rare 10 occurrence but it does happen? 11 Mr. BOB PETRIE: Well, yeah, and I guess 12 the response that is selected I guess would depend on what 13 you're trying to achieve with the response. You know, if 14 that is deterrence or if a proponent has demonstrated a 15 repeated inability or unwillingness to comply, that may be 16 an appropriate circumstance for revocation or suspension. 17 More commonly, you know, we've laid a 18 number of prosecutions and charges every year. Some of them 19 are related to approvals and some are not, and I don't have 20 the breakdown to differentiate right now. 21 THE CHAIRPERSON: I'd like to move to 22 another topic. 23 Bilcon has said that they would meet the 24 standards in the Pit and Quarry Guidelines. Could you 25 inform us what those Guidelines are, and how they rate to

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1 the approvals? Could stricter parameters be required than 2 the Pit and Quarry Guidelines? Do you think they're 3 sufficient, and is there a possibility that you're going to 4 be improving these? 5 Mr. BOB PETRIE: I'll address the first 6 portion of that question. Then I might refer the second 7 portion on the future of the Guidelines to my colleague, Ms. 8 Fenton. 9 The Pit and Quarry Guidelines are 10 basically the technical standards that we apply to Part V 11 approvals, and I guess it is, you know, the benchmark by 12 which we judge whether a facility should be approved or not. 13 If it's obvious that they can't meet these Guidelines, it 14 wouldn't be approved. 15 The Guidelines detail or discuss issues 16 ranging from clearance distances to different features, 17 whether it be a home, or a water course, or something of 18 that nature. They also detail liquid effluent as well as 19 airborne particulate discharge requirements, sound and 20 blasting, ground vibration limits, and also discuss security 21 and rehabilitation requirements. 22 Those Guidelines are used as the basis 23 for drafting the terms and conditions of the approval. Ι 24 believe the legislation allows us to, if circumstances 25 warrant, if an area was deemed more sensitive to impact, we

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1 have the authority to require measures stricter than a given 2 set of Guidelines. We would need a reason to do so; a 3 reason that differentiates this situation from another 4 situation. 5 And I'll just consult on the future of 6 the Guidelines, as you asked. 7 Ms. DARLENE FENTON: The Pit and Quarry 8 Guidelines, we're currently going through a consultation 9 period related solely to the pit side of the Guideline. We 10 had a pit discussion paper that went out for consultation in October of '05 that took place until February of '06. 11 12 We've now taken that information, and 13 are preparing a position paper from the Department side of, 14 point of view from what we heard from the consultation. 15 We had the consultations from the 16 industry as well as from the public. What we're, what will 17 happen out of that, we will split the Guideline, and we will 18 develop a standard, or a guideline, or a best management 19 practice, or a regulation related to pits, and that after 20 that we will look at the quarry side of things. 21 We will, in all likelihood, separate the 22 two, and have a separate document for quarries and a 23 separate document for pits. 24 THE CHAIRPERSON: So for the foreseeable 25 future, the quarry side of the Pit and Quarry Guidelines A.S.A.P. Reporting Services

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will remain in effect? So for the next few years, 1 2 presumably? 3 Ms. DARLENE FENTON: That's correct. 4 THE CHAIRPERSON: Thank you. 5 Dr. GUNTER MUECKE: Yes, while we're on the Pit and Quarry Guidelines, in the current Guidelines, 6 7 are there any provisions, or special provisions which apply 8 to coastal quarries? 9 Mr. BOB PETRIE: No, there's nothing to 10 distinguish coastal quarries in these Guidelines. Dr. GUNTER MUECKE: In the future 11 12 Guidelines, is there any consideration at the present time 13 regarding coastal guarries? 14 Ms. DARLENE FENTON: I think what we'll do... The recommendation from staff to senior management 15 16 will be the same process that we use for the pit discussion 17 side of the Pit and Quarry Guidelines. We will do the same 18 for the quarry piece. 19 So after we finish with the pit side of 20 these Guidelines, we'll go for public consultation on the 21 quarry side, as well. That will be the recommendation. So, 22 you know, that may be a possibility in the future. I'm not 23 sure. 24 Dr. GUNTER MUECKE: If I understand you 25 right, you're saying at the present time in the future A.S.A.P. Reporting Services

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1 Guidelines, there are no special considerations for coastal 2 quarries, but they may appear if, during that process, they 3 are identified? Is that correct? 4 Mr. BOB PETRIE: Yes, I think that issues 5 that are addressed in future versions of the Quarry 6 Guidelines would be raised during the consultative process. 7 That may include coastal issues. We 8 don't know yet. 9 Dr. JILL GRANT: Could I just ask you for 10 clarification? 11 You indicated that, as part of the 12 approvals permit, you would be requesting written permission 13 or indication of written consent from property owners within 14 800 metres. 15 Is that 800 metres from the property 16 boundary, or 800 metres from which of the blast sites 17 because there would be blast sites through the course of the project? And just for clarification, can you tell us what 18 19 that means? 20 Mr. BOB PETRIE: That is 800 metres 21 measured from the foundation or the base of a structure to 22 the working face of the quarry. 23 Dr. JILL GRANT: At which point in time 24 'cause the working face is going to be moving? So you're 25 just going to require it for the first working face at the

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1 first portion? Is that correct? 2 Mr. BOB PETRIE: We would look at that 3 from the final working face. 4 Dr. JILL GRANT: From the final working 5 face. 6 Mr. BOB PETRIE: Yes. 7 Dr. JILL GRANT: Thank you. 8 THE CHAIRPERSON: Does the Department 9 require all residences within 800 metres to provide a 10 waiver? 11 Mr. BOB PETRIE: Not if they are owned by 12 the Proponent. 13 THE CHAIRPERSON: Other than that, all 14 individual domestic houses would require a waiver. 15 Mr. BOB PETRIE: Dwellings, yes. 16 THE CHAIRPERSON: Yes. Does Environment 17 and Labour work with DFO regarding blasting requirements in 18 the marine environment? 19 Mr. BOB PETRIE: Typically, our 20 management of blasting activities in most quarry approvals 21 is, you know, limited to our own involvement. 22 I think early on in the lifespan of the 23 original approval here a particular unknown or concern was 24 expressed in relation, you know, to blasting and the 25 jurisdiction of DFO, so in the issuance of that approval it, A.S.A.P. Reporting Services

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1 you know, reflected their concerns. 2 But in most quarry approvals, I quess 3 what I would say is when we issue an approval, you know, we 4 are open to consultation with other agencies, and if a 5 particular concern is expressed that intersects between the mandates of the two agencies, we will, I guess, try and work 6 7 together on that. 8 But that would be looked at on a case-9 by-case basis. 10 THE CHAIRPERSON: In general, it's a 11 decision made independently with advice and a rare occasion 12 when actually it's a collaborative decision. 13 Would that be fair? 14 Mr. BOB PETRIE: The concept of working 15 collaboratively with these other agencies is not a rare 16 occasion. THE CHAIRPERSON: I meant collaborative 17 18 decision making. In other words, the two of you would get 19 together and decide on something, and it would become policy 20 or become adopted by both organizations simultaneously. 21 It's a higher degree of collaboration 22 than simply consultation. 23 Mr. BOB PETRIE: You know, again, where 24 possible, we would collaborate. 25 However, you know, if a decision needed A.S.A.P. Reporting Services

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1 to be made and, for example, a proposal met all of the 2 requirements of Provincial or Environment and Labour's 3 legislation but there were still outstanding issues in 4 another agency's mandate, we might still issue that 5 approval. 6 Our approvals don't override, you know, 7 the mandate of another agency. 8 During the process, you know, we often 9 try to provide an opportunity to collaborate. That doesn't 10 necessarily mean that our approval would be projected solely 11 on the basis of issues that were in another agency's 12 mandate. 13 THE CHAIRPERSON: Could we turn to 14 surface water for a moment? 15 Your presentation identified two 16 potential impacts to surface water. Could you elaborate on 17 these? 18 And are the proposed mitigation measures 19 suggested by the Proponent adequate? 20 Mr. BOB PETRIE: The primary issues of 21 concern relating to surface water are erosion and 22 sedimentation. 23 The final determination as to whether 24 they could satisfactorily meet those objectives, we wouldn't 25 make a final determination on that until after we'd seen the A.S.A.P. Reporting Services

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1 detailed design in the Part 5 approval process. 2 THE CHAIRPERSON: I see. So the 3 mitigation would wait until then. Your decision vis a vis 4 mitigation would wait until Part 5. 5 Your decision with regard to the adequacy of mitigation would wait until Part 5. Is that 6 7 correct? 8 Mr. BOB PETRIE: Yeah. The adequacy of 9 the specific measures, yes. 10 Dr. GUNTER MUECKE: In terms of surface 11 water, one of the concerns that has been raised is with 12 respect to explosive residues. And I was wondering whether 13 that was a concern to your Department. 14 Mr. BOB PETRIE: And just before I ask 15 Mr. Arthur to answer that, just a follow-up to the previous 16 question, that in the Part 5 approval there would be 17 specified discharge limits for suspended solids as well. 18 Mr. BRUCE ARTHUR: In terms of blasting 19 residue, it hasn't been an issue that we've dealt with to 20 any great extent. 21 You know, I understand the concern about 22 ammonia levels and what not, and we would have terms and 23 conditions within the Part 5 approval that would address 24 that if that was identified as an issue through this 25 ENVIRONMENTAL ASSESSMENT process.

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1 Dr. GUNTER MUECKE: Well, going back 2 again to monitoring that you have proposed in other 3 quarries, is the monitoring of nitrogen compounds a 4 requirement at any of the existing Nova Scotia quarries? 5 Mr. BOB PETRIE: No. Monitoring of those 6 compounds is not a typical requirement. 7 Dr. GUNTER MUECKE: So you really have no 8 idea whether it's an issue or not. 9 Mr. BOB PETRIE: I guess whether it's an 10 issue would be based on a, you know, literature review or 11 some research. It wouldn't be based on experience one way 12 or the other in Nova Scotia. 13 And to my knowledge, we haven't come 14 across any incidents in an ad hoc fashion where it was an 15 issue. 16 THE CHAIRPERSON: It hasn't been raised 17 in Porcupine Mountain, which is the other marine quarry? 18 I mean, they're doing blasting. They're 19 adjacent to the ocean. I don't know, but I presume they're 20 using the same explosives, so they're producing large 21 quantities of residue. 22 Mr. BOB PETRIE: I honestly don't know 23 whether it's been an issue in Porcupine Mountain. That's 24 something we could undertake to follow up on for you. 25 THE CHAIRPERSON: Okay. Yes.

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1 In reviewing the EIS, does the 2 Department consider that the information provided is 3 sufficient, that you have enough information to determine 4 the water supply and demand? 5 There will be an ongoing commercial need 6 for water, and is the supply adequate and do you have enough 7 information to make that judgment? 8 --- Pause 9 THE CHAIRPERSON: While they're engaging 10 in discussion, this is a formal undertaking we're asking you 11 for now vis à vis the residue. 12 --- Pause 13 Mr. BOB PETRIE: The adequacy of the 14 water... And you were referring to surface water 15 withdrawal? 16 THE CHAIRPERSON: Yes. 17 Mr. BOB PETRIE: Yes. That is something 18 that we would do further evaluation of during the Part 5 19 approval process to ensure that the proposed water budget 20 was sustainable. 21 THE CHAIRPERSON: Where exactly does your 22 Department's responsibility lie with regard to discharge 23 into the marine environment? 24 Accepting the fact that there are other 25 institutions, organizations, jurisdictions, at what point do A.S.A.P. Reporting Services

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1 you kind of draw the line? Up until what point are you responsible? 2 3 Mr. BOB PETRIE: I would say our 4 responsibility is at the compliance point of the approval in 5 meeting the discharge limits. 6 And by that, I mean any adverse effects 7 that result from a discharge into marine waters from an on-8 land facility, we would probably not be able to pursue from 9 an adverse effect point of view. However, it would be a 10 violation of the discharge requirements of the approval. 11 THE CHAIRPERSON: So determination would 12 be made by DFO and then you would come into it in terms of 13 enforcement? 14 Mr. BOB PETRIE: Normally when these 15 incidents occur, it's not uncommon for DFO and ourselves to 16 undertake a joint investigation. That happens guite 17 commonly. 18 Then, once the investigation's complete, 19 you know, we'll usually make a determination on which agency 20 should go forward, and how. 21 And again, the situation you described, 22 if there was an exceedance(sic) of the discharge limits... 23 Well, to use an example, if there was an exceedance(sic) of 24 the discharge limits but no adverse effect in the marine 25 environment, it could still be viewed as an offense under

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1 our legislation and under the approval, but something that 2 DFO may not be able to act upon. 3 However, if there were adverse effects 4 in the marine environment, that isn't something that we 5 would be able to address. 6 Dr. JILL GRANT: Could I just ask a 7 follow-up about the previous question? 8 You were asked whether there's enough 9 information to determine the water budget on the site, and 10 my recollection of reading the staff report from the 11 Department indicated there were concerns about the 12 information available on the water budget. 13 Obviously, for us charged to determine 14 what the effects of this project are, whether the effects 15 are adverse or not, we need to have a certain amount of 16 information. And you're telling me, well, it'll be decided 17 after we make our decision you'll regulate that. 18 So I'm just a little concerned to know 19 the answer to the question that Dr. Fournier answered(sic) 20 about is there enough information here about the water 21 budget, about the water effects, to say what those effects 22 are and what your advice to us on that is. 23 Mr. BOB PETRIE: Just referring to the 24 comments from the Department, and I understand we have 25 further questions about ground water issues and, you know,

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1 those will be discussed in more detail during tomorrow's 2 session, so I believe that's where most of the questions lie 3 is surrounding ground water. 4 THE CHAIRPERSON: Perhaps, rather than 5 continuing on in this line, what I'll do is I've got some 6 additional questions with regard to water, but perhaps I'll 7 save those until tomorrow. 8 How does the Department handle public 9 complaints with regard to dust and noise, which I presume 10 are among the most common complaints from citizens? 11 What action do you take? 12 Mr. BOB PETRIE: Generally speaking, we 13 would look to ascertain whether any violation of the 14 approval had occurred. 15 In the situation surrounding a dust 16 complaint, there are provisions... In a typical quarry 17 approval, there are provisions to require the Proponent to 18 monitor for noise and for dust, and there are limits 19 established in the approval for those parameters. 20 We would compare and look at any 21 complaints against the information that was coming in from 22 any monitoring that was going on. 23 If monitoring had not yet been invoked, 24 but we received complaints of, I quess, a sufficient 25 frequency and veracity that indicated that monitoring was

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needed, then we would typically activate those conditions 1 2 and require the Proponent to monitor for noise and dust. 3 And I'll quality that distinguishing on 4 the noise issue because there's the ongoing operational 5 noise as well as noise from air concussion during blasting, and that air concussion would be monitored on a routine 6 7 basis. 8 THE CHAIRPERSON: So you would receive a 9 complaint and then you would immediately have someone 10 investigate and then, depending on the information returned 11 in the investigation, then you would follow a series of 12 protocols. 13 Mr. BOB PETRIE: Yeah. For instance, you 14 know, if we received a complaint from a neighbour or a 15 series of neighbours, we would go out. We would interview 16 them, talk to them, find out, you know, the details, how bad 17 is it, how frequent. 18 We would typically look for, you know, 19 observations that, I guess, support the complaints, and if 20 we saw that this was warranted, then we would invoke the 21 Suspended Particulate Monitoring provisions of an approval 22 if they were not already activated to require ongoing 23 monitoring. 24 And at that point, we could apply the 25 compliance limits.

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1 Dr. JILL GRANT: Just a follow-up on the 2 question of noise. 3 The proposal indicates that, at times, a 4 ship may have to come in at night, and I presume at times it 5 might have to come in on a Sunday. 6 Are there any kinds of provisions that 7 would cause you concern about the variability there, that 8 these kinds of things could extend into any time in the week 9 in terms of noise, I'm thinking? 10 Mr. BOB PETRIE: I guess the issue 11 relating to noise from ships that may be docking at the 12 facility, we would only be looking at noise from sources 13 within the active area of the quarry, and we wouldn't be 14 regulating noise sources from offshore. 15 Does that answer your question? 16 Dr. JILL GRANT: Can you tell me who 17 would be regulating the noise from the offshore? 18 Mr. BOB PETRIE: I don't have that 19 information. 20 THE CHAIRPERSON: Could we move to the 21 CLC? 22 I think it's common knowledge that there 23 were some difficulties with regard to the CLC as it existed 24 here, and by that I mean, without taking sides, that there 25 are two opinions as to how it worked.

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1 There are opinions of some people within 2 it and there are people of the Proponent, and we're not 3 making any judgment as to whether one was correct or not. 4 But there was clearly a polarization. 5 Now, if you were to produce a CLC on 6 This project was approved and you were to create a the... 7 new one or have a role in creating a new one, how should it 8 be organized and run for the greatest effectiveness? 9 How do you overcome the difficulties 10 that apparently existed before? What are we trying to 11 achieve with the CLC? 12 --- Pause 13 Mr. BOB PETRIE: The issue of the CLC is 14 a tricky one. 15 I guess I'll preface this by saying that 16 we want the CLC to be, as much as possible, a self-driven 17 process and not a top down, you know, Government-managed 18 process. This has have buy-in both from the Proponent and 19 the community and the stakeholders to be functional. 20 That being said, you know, we're 21 learning about the functioning of these things as we go 22 along, and if it was necessary, I don't think we'd rule out 23 the option of, you know, considering the assistance of 24 professional facilitators or people with expertise in that 25 area to assist in the functioning of a CLC.

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1 THE CHAIRPERSON: Should it be driven by 2 the Proponent? Should it be driven by the community? 3 Should it be cooperatively driven? 4 Who should choose the members, things 5 like that, are all critical towards eventual utilization. 6 Mr. BOB PETRIE: I think in the past, the 7 approach that's been taken that this should be a 8 collaborative process, and most CLCs would set their own 9 terms of reference, we have not, you know, dictated the 10 membership, only to say that it needs to be representative 11 of the stakeholders involved. 12 Pardon me for one second. 13 --- Pause 14 Mr. BOB PETRIE: One thing that I could undertake, which is fairly simple to do, is to provide the 15 16 Panel with a copy of the guidelines we use for the formation 17 of a CLC. 18 I don't have them with me today, but 19 that would be a... 20 THE CHAIRPERSON: We have them. They 21 were provided to us in the responses. But if I'm not mistaken, in that process 22 23 we were given it was suggested that the Proponent would be 24 the organizer, the creator of the CLC. 25 And I'm suggesting to you that one side A.S.A.P. Reporting Services

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1 or the other having a controlling influence is probably 2 debilitating to the process itself. Would you not agree? 3 Mr. BOB PETRIE: I think the process 4 needs to be reflective of both sides, you know, of the 5 issue. I do agree with that. 6 Dr. GUNTER MUECKE: You said that, if I 7 understand you right, that you... In terms of influencing 8 the composition of the CLC you expressed interest that all 9 stakeholders be represented, and if you're presented with a 10 CLC that... And there are community concerns about its 11 composition, how would you react to that? 12 Mr. BOB PETRIE: I think we would need 13 to, you know, take those concerns seriously and assess them. 14 I guess it would depend on the situation as to what level 15 of intervention we might consider. 16 Again, you know, we want the CLC to be a 17 vehicle for communication and information exchange between 18 the parties, and I think it's... You know, if we see that 19 that's not effectively occurring, then we'd have to consider 20 our options. 21 But we're dealing with, obviously, many 22 different individuals on a CLC with many different points of 23 view, and it can often be very difficult to successfully 24 balance all of those in a way that's satisfactory to 25 everybody.

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1 Dr. GUNTER MUECKE: Thank you. Just one 2 small follow-up. 3 Have you run across instances where you 4 have had to intervene? 5 --- Pause 6 Mr. BOB PETRIE: Yeah. I don't have any 7 specific examples to provide you with, and I guess it 8 depends on, you know, what we mean by intervention, but I 9 think it's something that, if we were presented with a 10 problem, we would look at that. 11 I guess the other thing I'd point out 12 is, you know, when we've required these in the past, and 13 they are reflected as a condition of approval, however, I'll 14 be honest and say compliance is more difficult to ascertain 15 when you're trying to evaluate the functioning of a CLC 16 versus whether or not a company is meeting a discharge 17 requirement. 18 And to assess whether due diligence has 19 been exercised in meeting that requirement is a difficult 20 task. 21 And I guess, you know, that is another 22 perspective, too, is that you referenced the Proponent 23 having a quasi-leading role in the committee and whether 24 that's appropriate. And I understand the question. 25 I think that may be an artifact of the A.S.A.P. Reporting Services

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1 way that it's written in the approval in that we have 2 required the Proponent to form this or set this up, and that 3 may be misconstrued as the Proponent trying to drive the 4 agenda, which is not what it's for. 5 THE CHAIRPERSON: So despite the wording, 6 philosophically, you don't... What you're saying is, 7 philosophically, it's got to be a shared relationship in 8 which both parties are getting something out of this 9 relationship as opposed to being driven by the interests of 10 one party. 11 Mr. BOB PETRIE: Yes. You don't want a 12 situation where it's simply, you know, one side calling the 13 meetings, setting the agenda and conveying the information 14 in a one-way fashion. That's not what we want to achieve. 15 THE CHAIRPERSON: Okay. We're being 16 driven by time, unfortunately, and we're going to have to 17 terminate the Panel's questions at this point. 18 So I think what we're going to do is 19 turn to Mr. Buxton and find out whether he has any questions 20 for you. 21 PRESENTATION BY THE NOVA SCOTIA DEPARTMENT OF ENVIRONMENT 22 AND LABOUR - QUESTIONS BY THE PROPONENT 23 Mr. PAUL BUXTON: I wonder if you'd mind, 24 Mr. Chair, if I made a few clarifications as well as 25 questions. I'll try to be very brief.

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1 With respect to the Community Liaison 2 Committee, as you know, and you have the protocol, as it 3 were, from Nova Scotia Department of Environment and Labour, 4 the Proponent is, in fact, required on request by the 5 Department to set up a Liaison Committee. 6 Certainly we had a difficult time to do 7 that, but nonetheless, one was set up. 8 Our responsibilities after that are to 9 provide services to the Committee at the request of the 10 Chair. We're required, for example, to provide someone to 11 type their minutes for them. 12 We're required, if the Chair asks, to 13 provide additional copies of the minutes. The Chair could 14 ask us to put minutes up on a web site, for example. 15 The Chair could also make a request for 16 the Proponent to bring its consultants forward to the 17 Committee so that the Committee and anybody in attendance 18 could ask questions, and that was done on several occasions. 19 I don't think, certainly in our case, 20 that the Proponent attempts to drive the process. The Chair 21 calls the meetings, they tell us who they want there, and 22 where to provide a function, or to provide them a meeting 23 room and to provide them with the facility. 24 So I think the setting up is really 25 where the problem is, because some Committee members felt A.S.A.P. Reporting Services

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1 that if they sat on the Committee then they were immediately 2 tainted with being in support of the project, whereas if 3 they refused then they were on the other side. 4 And it was a very difficult process to 5 try to get people who were neutral, and to try to impress on 6 them that their job was simply to act as a conduit for 7 information, to bring concerns to the Proponent, and to get 8 answers back out to the public again. It was a difficult 9 process. 10 On another point of clarification, with 11 respect to... And unfortunately, we've gone through this a 12 couple of times, but I'd like to make the point again with respect to the constructed wetland and the bog. There never 13 14 has been a connection between those two in any of our, 15 either in the Environmental Impact Statement or in the 16 revised. 17 The supply of water to the bog has never 18 been provided via the sediment ponds, and secondly, that the 19 supply of water to the bog in the future, to ensure its good 20 health, basically is in the same small ravine which 21 currently supplies the bog. 22 So essentially, what we're trying to do 23 is to reproduce the exact conditions that are there. 24 I would also ask a question now, if I 25 could, of the Department; if they could explain the

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1 difference between guidelines and regulations. There is an 2 act, the Pits and Quarries Act, and it does not have 3 regulations, but it has guidelines, and I think it might be 4 useful for us to understand what happens when there are 5 quidelines but not regulations attached to an act. 6 Mr. BOB PETRIE: Thank you. I quess, 7 simply put, the difference between guidelines and 8 regulations, in one sense, regulations are immediately 9 binding and enforceable, in and of themselves. 10 Guidelines are generally used in creating specifications of a more technical nature, which 11 12 don't become enforceable, in and of themselves, unless they become referenced in the body of an approval. 13 14 The reason that guidelines are used in 15 many cases, instead of regulations, is that guidelines can 16 be updated more easily when new public policy comes around, 17 or new scientific information becomes available. The 18 process of revising and updating a guideline is much simpler 19 than that of a regulation, which is why they are used in a 20 variety of technical situations. 21 Mr. PAUL BUXTON: Thank you. That's very 22 clear. 23 The Panel asked whether, in fact, on 24 projects, it was either possible or even perhaps standard 25 practice to impose conditions which may be more stringent

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1 than as set out in the quidelines, and I would like to ask 2 you whether there is a practice or there are cases of, in 3 fact, less stringent conditions allowed in the operation of 4 a quarry than are in the guidelines. 5 Mr. BOB PETRIE: Off the top of my head, 6 I won't be able to reference any specific situations. 7 Generally speaking, if one were to use a less stringent 8 specification than what's set in the guideline it would need 9 to be demonstrated that either that section of the guideline 10 didn't apply to the current situation, or that there was 11 some other valid, I guess, scientifically-supported reason 12 that a lesser specification could be used. 13 However, generally speaking, our 14 guidelines are the baseline, and they're set at certain 15 levels, in many situations, to provide for environmental 16 protection, but also to provide a margin of safety when 17 dealing with an issue. 18 Mr. PAUL BUXTON: Thank you. I think 19 that that's really what I was getting at; that the 20 quidelines are presumably set there because experience has 21 shown that in the majority of circumstances, by adhering to 22 those guidelines, the particular section that it addresses 23 to addresses the effects of that particular stipulation or 24 guideline. 25 And I'm just wondering, if I could just

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1 pursue that a little bit further, that if one could 2 demonstrate that, in fact, the conditions or end result or 3 effect met the guidelines, whether the guidelines could then 4 be diminished or indeed increased to take into account that 5 fact. 6 Mr. BOB PETRIE: I quess that's something 7 we'd have to look at on a case-by-case basis. 8 Mr. PAUL BUXTON: Thank you very much. 9 And I just would like to make a comment here, if I could, that the Industry Mineral Association of Nova Scotia 10 11 certainly has been very vocal in its promotion of the 12 adoption of regulations rather than guidelines, which sounds a little odd, but the Industry, in fact, welcomes very 13 14 specific regulation rather than guidelines, and there have 15 been approaches to the Government through the Department and 16 through approaches to the Government itself, to try to bring 17 in regulations which are very specific, and which in fact 18 apply to all people in the industry. 19 Guidelines tend to introduce this 20 element of doubt as to whether it applies in this case or 21 this case, and this person has a little bit of better deal 22 than I do. 23 I just have one more quick one, if I 24 may, Mr. Chair, with respect to the water budget and water 25 supply demand.

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1 I had rather thought that we had 2 satisfied all the questions on that. Certainly more 3 information was requested following our submission of the 4 EIS, and those were addressed in length in our responses, 5 and they specifically dealt with various drought periods and 6 so on. 7 With the exception of the issue that was 8 raised by Environment Canada this morning with respect to 9 the level of precipitation in extreme periods, which sort of 10 deals perhaps sort of more or less with water supply than 11 perhaps capacity of our system to hold it, and I would just 12 like to perhaps say that if there are issues outstanding 13 with respect to water budget, we are not aware of them, and 14 if they are then we would certainly like to address them 15 immediately. 16 Thank you. 17 THE CHAIRPERSON: Thank you, Mr. Buxton. 18 Now we'll turn to questions from, just a 19 moment, questions from Government, if there are any. Ιf 20 not, then we'll turn to questions from the registered 21 participants. 22 PRESENTATION BY THE NOVA SCOTIA DEPARTMENT OF ENVIRONMENT 23 AND LABOUR - QUESTIONS FROM THE PUBLIC What I would suggest, maybe in the 24 25 process of expediting this, maybe I could ask you to line up A.S.A.P. Reporting Services

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1 behind the microphone. In other words, that would 2 immediately give us a sense of how many there were, and I 3 think it would make it a bit easier and speed things up a 4 bit. 5 Now, I have to offer a kind of a... Oh, 6 my goodness. Oh, my, my. Well, okay. 7 We're very much behind. We will be 8 about an hour and a half behind. Now, that's not a bad 9 thing, but remember, the principal purpose for this process 10 is to inform the Panel. So if the Panel goes on at some length, it's informing itself, and the amount of time being 11 12 spent on this means that a lot of information is 13 transferring hands. 14 So I don't want any of you to think that 15 in any way you're being diminished, but it's just part and 16 parcel of the process, okay? 17 So Mr. Muir. Moir, I'm sorry, I'll get 18 it right. Please. 19 Mr. ANDY MOIR: I just don't want to be 20 confused with Jamie. 21 --- Laughter 22 THE CHAIRPERSON: Go ahead. 23 Mr. ANDY MOIR: Not that he's a bad 24 person. I just want a point of clarification on, I think 25 I've got this right, this Part Five approval. That is not a A.S.A.P. Reporting Services

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1 public process. That's basically between the Department and 2 the Proponent. Is that correct? 3 Mr. BOB PETRIE: In many cases it is, but 4 we have the option to make it a public process if the 5 circumstances necessitate it. 6 Mr. ANDY MOIR: Could I do a quick 7 follow-up on that? I guess the concern that many of us have 8 is that there seems to be so much information that would 9 come out in the Part Five process of the approval that we 10 believe to be critical to actually determining whether the project should go ahead at all, and I wonder what triggers 11 12 and how one triggers making sure that the Part Five approval 13 has some sort of public scrutiny as opposed to being an in-14 house operation. Mr. BOB PETRIE: Actually, in the case of 15 16 quarries, some time ago we made the decision that we would 17 open up Part Five approvals for quarries to a public 18 information period. 19 So I wouldn't see any reason that this 20 would be different. 21 Mr. ANDY MOIR: Thank you very much. 22 THE CHAIRPERSON: Thank you. Mr. Mullin? 23 Mr. DON MULLIN: Don Mullin. I'll try to 24 make my question short. There was a discussion this 25 morning, I believe it was between Dr. Muecke and Mr. Petrie,

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1 and it had to do with the sedimentation complaint of several 2 years ago, and I believe Dr. Muecke asked the question, or 3 perhaps it was Dr. Fournier, in terms of the delay or how 4 long was it before that was investigated. 5 And I believe the answer was given that 6 we weren't sure. Well, I was involved with that, and I do 7 have the answer, but it's not up to me to give it to the 8 Panel. I wish, I wonder if Mr. Petrie would be prepared to 9 give the Panel some information about that delay. 10 Mr. BOB PETRIE: If the Panel wishes, I 11 can undertake to find that out and get that information 12 back. 13 THE CHAIRPERSON: That would be very 14 good, thank you. 15 Mr. DITTRICK: Yes. This has to do with 16 the CLC, to some degree, and outreach. 17 How would you characterize the content 18 of the various mailings, such as newsletters from the 19 Proponent to the community? Would they best be 20 characterized as educational outreach or promotion of the 21 project and its acceptance? Did NSDEL in any way monitor 22 the outreach efforts beyond the CLC, and does Department of 23 Environment and Labour have expertise to make such an 24 assessment? 25 And if this is not the sort of thing

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1 that falls within the jurisdiction of the Environment and 2 Labour, where does it fall? 3 And I'd also like to make a... Actually 4 ask either the Secretary or the Panel if these mailings are 5 actually, at this point, part of the Panel record, and if 6 they've been submitted by the Proponent to the Panel. 7 THE CHAIRPERSON: I'm not sure of the 8 answer. Do you know? Perhaps you could ask that question 9 of us later, and we could see if we could get it for you. 10 Alright? 11 Mr. MARK DITTRICK: But I would also like 12 a response from---13 THE CHAIRPERSON: Oh, alright. 14 Mr. MARK DITTRICK: --- Environment and 15 Labour to my questions about if they have, indeed, seen 16 these materials, and if they have assessed them in any way, 17 how would you characterize them, and does this fit within 18 the framework of what you expect the outreach from the 19 Proponent to be? 20 Mr. BOB PETRIE: I guess we, I'll say we 21 probably did see much of the, many of the materials that 22 were circulated during the CLC process. I believe we were 23 copied. You know, I can't sit here and say it was a hundred 24 percent. I don't know what we didn't receive. 25 We did not, I guess, monitor the, or

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1 treat that in an editorial capacity or anything of that 2 nature to monitor the publications or the materials in that 3 sense. 4 Mr. MARK DITTRICK: Is there a 5 requirement of any sort of veracity from the Department with 6 respect to any of these materials and the content? 7 Mr. BOB PETRIE: It is, I guess, for the 8 veracity of the materials, anything that is submitted in 9 fulfilment of our requirements, there is a requirement under 10 the Act not to provide false or misleading information. 11 The materials in this case, during the 12 CLC process, were not scrutinized, you know, in detail in 13 that fashion. We monitored the process to make sure the 14 process was occurring. 15 Mr. MARK DITTRICK: So even though that 16 was a requirement ... 17 THE CHAIRPERSON: Mr. Dittrick, you've 18 had your question and follow-up. 19 Mr. MARK DITTRICK: Okay. Okay. 20 THE CHAIRPERSON: Mr. Mahtab? 21 Mr. ASHRAF MAHTAB: Thank you, Mr. Chair. 22 I have a question for the Department. 23 It's about the rehabilitation of the quarry site for the 3.9 24 hectare permit which was granted in April 2002, and the 25 permit I think was annulled in September 2004.

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1 And I also believe that the Department 2 received a reclamation bond which is four times \$6,250, for 3 the four-hectare quarry. 4 And my question is, did the Department 5 inspect the site to determine or estimate the cost of the rehabilitation, and then has, or when did the Department 6 7 rehabilitate the site. 8 --- Pause 9 Mr. BOB PETRIE: In this case of the 3.9-10 hectare site I don't recall if the rehabilitation bond was costed out or simply based on the flat rate that was 11 12 discussed in the guidelines. 13 As far as rehabilitation of the actual 14 site, when the approval I guess became null and void and 15 revoked because of the change in status of the company, we 16 looked at that, and we looked at the conditions of the 17 approval and the guidelines, and at that point, on the site, 18 the grubbing had occurred, construction of the sedimentation 19 and drainage structures had occurred. 20 Quarrying had not commenced, and the 21 rehabilitation provisions of an approval do not activate 22 until quarrying commences, and therefore rehabilitation was 23 not required. 24 Our position in that case was that they 25 are still not permitted to cause adverse effects, and could A.S.A.P. Reporting Services

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1 be held accountable in that event. 2 THE CHAIRPERSON: You have a follow-up, 3 Mr. Mahtab? 4 Mr. ASHRAF MAHTAB: My understanding is 5 that all the disturbance of the site was in preparation for 6 blasting, as soon as the blasting permit had been received. 7 There was no other motivation for removing the grub and 8 making the siltation ponds, et cetera, except for preparing 9 to start the quarrying operation. 10 The other evidence that I have is the 11 correspondence between DEL and the Proponent about the 12 submission of the amount for the rehabilitation bond. 13 THE CHAIRPERSON: That's a statement. 14 Mr. ASHRAF MAHTAB: That's a statement. 15 THE CHAIRPERSON: Okay. Thank you, Mr. 16 Mahtab. Ms. Mitchell, are you next? 17 18 Mr. PAUL BUXTON: Mr. Chair, could I just 19 add some clarification, here, if I may? 20 The original bond was, in fact, as 21 required. It was in the amount of \$25,000. The Proponent 22 is further required, upon the issuance of the permit, to in 23 fact do calculations and determine how much the cost of 24 rehabilitation would be, and Bilcon did in fact do that 25 calculation, and submitted further funds to the Department

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of Environment and Labour, and they still have those funds 1 2 in their entirety. 3 THE CHAIRPERSON: Thank you. Next? I'm 4 sorry, I don't remember your name. 5 Ms. NORA PEACH: My name is Nora Peach. 6 I am a registered participant. Nora, N-Okay.-r-a; P-e-a-c-7 h. 8 THE CHAIRPERSON: Thank you. 9 Ms. NORA PEACH: I remember a public 10 meeting in Sandy Cove in early spring 2002, soon after the 11 community heard about the mega-project, including a marine 12 terminal at White Cove. 13 The meeting was held, I think, soon 14 after the 3.9-hectare permit was issued by DEL. Mr. Petrie 15 was invited to the public meeting to explain to the public 16 about the quarry. I believe also there was Thomas Wheaton, 17 I think someone from DFO, at that meeting, to give that 18 background. 19 At this meeting, Mr. Petrie had to ask 20 Mr. Buxton, who was in the audience, to come forward to 21 explain the details of the project. Mr. Petrie, I believe, 22 started to explain, and then he called upon Mr. Buxton to 23 come forward. 24 How could DEL have issued the permit 25 with so little apparent understanding of the project? A.S.A.P. Reporting Services

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1 Mr. BOB PETRIE: I don't think we issued 2 the approval with an insufficient understanding of the 3 project, and if Mr. Buxton was called upon in that meeting 4 to provide additional, you know, detail, that's I guess what 5 was deemed appropriate at the time. 6 But when we issued the approval, the 7 approval package and submission are reviewed by our staff 8 and our engineering staff to ensure that the requirements, the submission requirements of that approval process are 9 10 met. I don't recall the information item that was, of the 11 subject at the time, but generally speaking, that is how we 12 would do that. 13 Ms. NORA PEACH: Thank you. 14 THE CHAIRPERSON: You're welcome. Next, 15 Ms. Peach. 16 Mr. PAUL BUXTON: Perhaps, Mr. Chairman, 17 if I may, I think we should have a clear understanding here 18 of who the Proponents were at the time. 19 The four-hectare permit was applied for, 20 and the permit was granted, to Nova Stone Exporters Inc. of 21 Nova Scotia. 22 THE CHAIRPERSON: Maybe this is a good 23 time to clear up something for me, which is, what is the 24 relationship between Nova Stone Exporters and Bilcon? 25 Mr. PAUL BUXTON: At this point in time, A.S.A.P. Reporting Services

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1 there is none.

2 THE CHAIRPERSON: Are the principals the 3 same? For example, were you involved with that? Mr. PAUL BUXTON: The principals of Nova 4 5 Stone are in no way associated with Bilcon of Nova Scotia 6 and never have been, although there was a partnership 7 entered into between Nova Stone and Bilcon of Nova Scotia. 8 That partnership was dissolved, and Bilcon has been the sole 9 Proponent since. 10 So I think the four-hectare quarry issue 11 is an issue of Nova Stone Exporters Inc. When Bilcon took 12 over the project from Global Quarry Products, it in fact 13 advised the Department of Environment and Labour that it was 14 not assuming the permit and was making no application to 15 assume the permit for the four-hectare quarry, and in fact 16 advised the Department that it was abandoning that permit, 17 and confirmation of that was received from the Department. 18 THE CHAIRPERSON: Thank you. Ms. Peach? 19 Ms. JUDITH PEACH: I might also just add 20 that Mr. Buxton is well known in the community for quarry 21 projects dating back even further, and that might give you 22 some clues as to why there's been, why this whole project 23 has been contentious. 24 There was another project that I 25 understand he was involved with on the other side of the A.S.A.P. Reporting Services

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1 Neck, but that wasn't my question. 2 THE CHAIRPERSON: No. Please, your 3 question. 4 Ms. JUDITH PEACH: Okay. 5 Mr. PAUL BUXTON: I think, Mr. Chairman, 6 I have to interrupt here, please. 7 Let me be quite clear about this. It's 8 been said many times before, and I've let it pass, but this 9 is absolutely untrue and I wish to lay it to rest. 10 At the time that this young lady is 11 referring to, I was acting, on a consulting basis, as 12 Executive Director of the Town of Digby and Municipality 13 Industrial Commission, and in that capacity, I served one or 14 two days a week, depending upon the demands of the job at 15 the time. 16 I had a request from a group, and that 17 request was to the Industrial Commission, and their proposal 18 was to look at opening a quarry on Eastern Head, which is in 19 the same general area as this, and I reviewed it with the 20 Industrial Commission and suggested that the principals, 21 first of all, make a presentation to the Municipal Council, 22 to see what level of support there may be, and secondly, I 23 suggested to them that it might be very useful to put their 24 proposals to the public. 25 And if you check the records very

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1	carefully, you will find that that public meeting that was
2	set up that everybody refers to was set up by the Industrial
3	Commission, so that the Silvas, who were the Proponents,
4	could in fact make their views known to the community.
5	Following that meeting, and I think
6	there were probably well over 200 people there, very clear
7	that this was a very unpopular proposal at the time, it was
8	on Eastern Head, on St. Mary's Bay. And I advised the
9	Silvas that in fact, you know, there would be significant
10	difficulty and public opposition to the project, and I so
11	reported to the Industrial Commission and to the Municipal
12	Councils.
13	That is the end of that story. That is
14	on record in the Minutes of the Industrial Commission and
15	the Municipal Council, and I wish to have it absolutely put
16	to bed that I personally was not involved in any other
17	quarry project on Digby Neck, other than in an official
18	capacity as Executive Director of an Industrial Commission.
19	THE CHAIRPERSON: I don't know if it's
20	been put to bed, Mr. Buxton, but it's on the record, and so
21	I think that
22	I mean, I'm not trying to
23	Mr. PAUL BUXTON: Mr. Chair, if it hasn't
24	been put to bed, I think it needs to be put to bed.
25	THE CHAIRPERSON: Perhaps.

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1 Mr. PAUL BUXTON: These records are 2 public records, and the Minutes of the Industrial Commission 3 are there, the Chair of the Commission at the time is still 4 available, and I think that this sort of statement should 5 not go unchallenged. 6 THE CHAIRPERSON: I understand, and I 7 wasn't trying to be facetious, Mr. Buxton. I was just 8 simply saying, I mean, you've done as much as you can at the 9 moment, and both sides have been heard. 10 Now, please, question. 11 Ms. JUDITH PEACH: It seems like some 12 members of the public knew that this project, this mega-13 quarry project, was going to... Or was in the works back in 14 2002, when it was really just a four-hectare project. Partly because there was a fax from Patterson Exploration of 15 16 North Carolina that people had access to. So they were 17 aware of a really vague description of a mega-quarry back in 18 the time of the four-hectare quarry. 19 Given that some people believe part of 20 the purpose of the four-hectare quarry was to obliterate 21 historical and archeological evidence at the site, I'm just 22 wondering when DEL was aware of this larger quarry, the plan 23 for the larger quarry? Any idea of the time frame? 24 Mr. BOB PETRIE: It's tough to pin down 25 when exactly we became aware of the long-term plans. Ι

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think even with that in mind, under the framework that we 1 2 have, it was still within, you know, within our framework to 3 permit a 3.9-hectare quarry. Even if there as a possibility 4 that that might, at some point in the future, request an 5 expansion, it met our requirements at the time. 6 And again, it might've been early on 7 when we realized the Proponent's long-term goals; however, 8 the project that they presented us with at the time was a 9 small-scale project which in no way assumed approval for any 10 subsequent expansions. 11 THE CHAIRPERSON: Mr. Lang? 12 Mr. WILLIAM LANG: Mr. Lang, Nova Scotia 13 Green Party. I would like to begin by requesting that the 14 Department of Environment and Labour provide to the Panel the decision-making processes of past quarry creeps in the 15 16 Province; who made the decision, was it public, was it in-17 house, or was it Ministerial only. 18 And a second question would be going 19 back to blast residue. Could anyone from the Department of 20 Environment and Labour comment on the amount of ammonia that 21 it would cause to instigate the development of an algae 22 bloom; that being the by-product of the ammonium nitrate 23 fuel oil explosions. Mr. BOB PETRIE: I'll just comment on 24 25 that... If I heard your question correctly, you were

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1 looking for the decision-making process relating to 2 incidents of quarry creep in the past. We can undertake to 3 look into that. 4 I'm not sure how that information would 5 be able to be retrieved from the current record system, 6 whether it would be tracked as such. It might be difficult 7 to provide it in the way that it's been requested. 8 THE CHAIRPERSON: Restate that please. 9 Mr. WILLIAM LANG: When the conversation 10 was referring to increases in quarry size, there was 11 discussion on how those decisions were made, whether they 12 were made by the Minister of Environment, whether they were 13 made by the Minister with dialogue with his staff, or 14 whether they were public. 15 Was there a public form? Was the public 16 involved in those decisions, to increase the size of already 17 established quarries in the province? 18 Dr. GUNTER MUECKE: I believe I put in an 19 information request to the Department about that earlier 20 this morning. 21 THE CHAIRPERSON: And you asked a second 22 question, but you're only allowed a follow-up. Are they 23 checking on this now? Mr. BOB PETRIE: The amount of ammonia 24 25 that it would take to cause an algae bloom, and I'll ask our A.S.A.P. Reporting Services

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1 analyst, Mr. Taylor, to offer some comments there. 2 Mr. DARRELL TAYLOR: With regards to the 3 amount of ammonia causing an algae bloom, it's my 4 understanding that ammonia would basically be an issue in 5 marine waters primarily, whereas phosphorus is limiting nutrient in fresh waters. 6 7 My expertise does not extend to the 8 marine environment, but I could hazard something of a 9 qualifier in terms of... It would be very difficult to say 10 and it would be based on the specifics of a given site. 11 If one water body was more sensitive 12 than an other, much less ammonia would be required to show 13 an algae bloom. 14 Beyond that, I'm getting out of my realm 15 of expertise and would have to differ to probably DFO or 16 Environment Canada. 17 Mr. WILLIAM LANG: Thank you. 18 Mr. BOB PETRIE: Just as a follow up, 19 I'm sure that would depend on a number of factors such as 20 Ph, and flows and what other nutrients were in the system at 21 the time, so there's a number of factors involved. 22 THE CHAIRPERSON: Sister Barbara? 23 SISTER BARBARA: Yes. My name is Sister 24 Barbara, and I'm a resident of Digby Neck, in Rossway. My 25 question as well is on ammonia nitrate.

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1 I just wondered, is that considered a 2 hazardous waste? 3 Should an accident happen, say a truck 4 overturns and loses all its cargo, would it be a health risk 5 to humans? Because these trucks will go right by my 6 driveway. 7 Mr. BOB PETRIE: I guess if you're 8 talking about raw ammonium nitrate kind of in bulk form, it 9 would be considered a dangerous good, as it is an explosive. 10 Yes. 11 SISTER BARBARA: I guess that answers my 12 question. It is a hazardous waste? 13 Mr. BOB PETRIE: Well at that point, it's 14 not... If it's... At that point, it's not a waste, it's 15 a... 16 SISTER BARBARA: No, it's raw. 17 Mr. BOB PETRIE: It's a product, it's a 18 material. 19 SISTER BARBARA: Yes. 20 Mr. BOB PETRIE: And it would be 21 categorized as an explosive, however, as with many 22 materials, if a spill happens or it's upset in the wrong 23 place in the wrong environment, you can have adverse 24 environmental consequences as well. 25 THE CHAIRPERSON: Sister Barbara, A.S.A.P. Reporting Services

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1 after Ms. Mitchell. We've only had one cycle, and I know, 2 but we're two and a half hours behind, so I have to make 3 this judgement. 4 Ms. Mitchell? 5 Ms. LISA MITCHELL: Thank you. Lisa 6 Mitchell, for the Partnership. 7 From what I heard, I think I'm clear 8 that the Pitt and Quarry Guidelines are probably still going 9 to be undergoing some reevaluation and perhaps changes if in 10 fact this Project goes forward and receives an industrial 11 approval. 12 Could you comment on how the Proponent's 13 industrial approval, if they receive one ultimately, would 14 reflect changes to the Pitt and Quarry Guidelines, if they 15 came in after the approval was received? 16 Mr. BOB PETRIE: Generally speaking, the 17 Environment Act... Once an approval is issued, the 18 Environment Act allows an approval to be amended under 19 certain circumstances. 20 The question I guess of whether or not 21 it would be amended to stay totally up to date with new and 22 existing guidelines, I think at the time we would have to 23 look at what the nature of those changes were, and whether there was a reason to amend this approval and/or are there 24 25 process improvements that could be put in place over a

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1 period of time. 2 While we have the authority to amend 3 approvals when there's a reason, we're not able to do that 4 arbitrarily, you know? We have to have a valid reason for 5 doing so. 6 Ms. LISA MITCHELL: And not a follow up, 7 but just a quick clarification, I think Mr. Petrie what you 8 are saying is that amendments to the Pitt and Quarry 9 Guidelines might not necessarily be a reason for a change, it's not an automatic reason for a change? 10 11 Mr. BOB PETRIE: It wouldn't necessarily 12 be an automatic update of the approval, no. 13 Ms. LISA MITCHELL: Thank you. 14 THE CHAIRPERSON: Okay. This draws to a 15 close the participation of the Nova Scotia Department of 16 Environment and Labour. 17 I would like to thank you all ladies and 18 gentlemen for participating. It's been extremely 19 informative to us. 20 We will now adjourn for 15 minutes, and 21 we will resume with NRCan, Natural Resources Canada. 22 --- Recess at 2:37 p.m. 23 --- Upon resuming at 2:53 p.m. 24 THE CHAIRPERSON: Ladies and gentlemen, 25 we will resume now.

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1 We will begin with a presentation by 2 Andrew McAllister from Natural Resources Canada, NRCan. 3 Okay. 4 Mr. ANDREW McALLISTER: Thank you Mr. 5 Please prepare to be blinded. Chair. 6 PRESENTATION BY NATURAL RESOURCES CANADA - Mr. ANDREW 7 MCALLISTER 8 Mr. ANDREW MCALLISTER: Mr. Chair, Panel 9 members, ladies and gentlemen, first of all I would like to 10 thank you for the opportunity to present at these public 11 hearings. 12 My name is Andrew McAllister, I am a 13 Senior Environmental Assessment Officer with Natural Resources Canada, or NRCan for short, based out of Ottawa. 14 15 I'm responsible for coordinating the 16 NRCan review of the Environmental Impact Statement and supporting documentation, as well as NRCan's participation 17 18 in this Joint Review process. 19 My presentation will introduce NRCan to 20 the Panel and is to provide a summary of our involvement in this environmental review and of our comments provided to 21 22 the Panel. 23 What I am presenting is based on NRCan's 24 written submission of June 12, 2007 and is currently on the 25 registry.

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1 Briefly, our mandate and role first. 2 NRCan is an economic science-based federal department with a 3 mandate to promote sustainable development and responsible 4 use of Canada's mineral, energy and forestry resources and 5 to develop an understanding of Canada's land mass. 6 The Department also conducts research 7 and technical surveys to assess Canada's resources. More 8 specifically relevant to this review, NRCan also conducts 9 environmental geo-science research and terrestrial in 10 marine settings. 11 NRCan's role in relation to this Project 12 is relatively limited. NRCan has no regulatory or decisionmaking responsibilities for this Project. 13 14 As such, NRCan's involvement in the Joint Environmental Review process stems from its 15 16 obligations under the Canadian Environmental Assessment Act through which NRCan has determined that it was a federal 17 18 authority in possession of specialist's information or 19 knowledge relevant to the Project. 20 Therefore, in the context of this 21 Review, NRCan's role is to provide technical and scientific 22 expertise within the limits of its mandate. 23 The two experts of NRCan that have 24 participated in this Review include the CANMET Mining and 25 Mineral Sciences Laboratories and the Geological Survey of A.S.A.P. Reporting Services

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1 Canada. 2 The CANMET Group was engaged as a result 3 of the request made by the Joint Review Panel to NRCan for expertise on the aqueous geochemistry of waste rocks. 4 5 This request was made shortly after the 6 notice for these public hearings was announced. 7 The Geological Survey of Canada was 8 engaged much earlier in the process and have reviewed the 9 Environmental Impact Statement or EIS for short. 10 These experts provided comments on three 11 general topic areas; Marine environments and processes, 12 hydrogeology and seismicity. 13 We filed our comments with the Panel on 14 August 3rd, 2006 and the Proponent provided a response to 15 our comments in February of 2007. 16 Upon review of these responses, the 17 experts have indicated that most of our responses or sorry, 18 most of the responses provided by the Proponent were 19 satisfactory. 20 However, our experts identified two 21 topic areas where there remained some issues where more 22 clarification was needed. 23 They are, as mentioned, the Marine 24 environment and processes, which will be the focus of this 25 presentation, with respect to specific issues and

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recommendations, and hydrogeology. 1 2 NRCan will be presenting in tomorrow's thematic session, at the request of the Panel, on this 3 topic, and I will be accompanied by Dr. Miroslav Nastev from 4 5 the Geological Survey of Canada, who conducted this review 6 on behalf of NRCan. 7 Lastly, with respect to that last bullet 8 on that slide, seismicity, NRCan's expert was satisfied with 9 the seismic hazard information that was provided in the EIS, 10 and no further information was required. 11 With regards to the aqueous 12 geochemistry, information requests were made by the Joint 13 Review Panel to the Proponent on the aqueous geochemistry of 14 copper in the basalt due to concerns of leaching into 15 overlying waters which could then migrate to groundwater or 16 intertidal zones. Specifically, further information was 17 18 sought on the leaching and chemistry of copper and on copper 19 impacts on marine life. 20 Dr. John Kwong, a senior environmental 21 scientist from NRCan's CANMET Mining and Mineral Sciences 22 Laboratory reviewed the EIS and supporting documentation at 23 the request of the Joint Review Panel in this area. 24 Although the amount of geochemical data 25 presented in the EIS is sparse, it is doubtful if more data A.S.A.P. Reporting Services

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1 would be necessary to determine if copper leaching from the 2 waste rock is a potential concern. 3 In the first place, a high copper 4 concentration of basalt does not necessarily corelate with 5 its leachability. 6 Generally speaking, the form (such as 7 sparingly soluble sulfides or readily soluble weathering 8 products) in which copper occurs in the basalt has more 9 influence on its leachability than its concentration. 10 This is clearly demonstrated by the 11 results of the four samples subjected to the leach test that 12 the Proponent provided in response to the information 13 request from the Panel on leaching. 14 NRCan would tend to agree with the 15 Proponent that their proposed monthly monitoring of basalt 16 copper in the water of the sediment ponds would be 17 sufficient to detect the mobilization of contained copper in 18 the basalt, should it occur. 19 With respect to the impacts on marine 20 life, it is important to note that NRCan's expertise is 21 related to the process by which copper in the basalt is 22 mobilized and becomes bioavailable. 23 NRCan does not have expertise in the 24 uptake of metals and marine life. 25 On this matter, local environmental

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1	conditions such as the availability of complexing agents and
2	water hardness can greatly affect the ecotoxicity of copper.
3	Previous work that Dr. Kwong was
4	involved with investigated mine tailings enriched in copper
5	(up to an order of magnitude greater than that in the basalt
6	at Digby Neck) that ended up in the marine environment.
7	Minimum impact on the local biota was observed.
8	Given the relatively low copper
9	concentration in the crushed basalt, the low copper
10	leachability in seawater, the small volume of material that
11	may end up in the marine environment and the relatively high
12	energy setting of the marine terminal site, serious
13	ecological impact from the copper is not expected to result
14	from accidental discharges of processed basalt near the
15	project site.
16	Further, the proposed mitigation
17	measures that the Proponent has identified in its response
18	to the Panel on the potential effects of copper on marine
19	life dealing with the leachability are satisfactory, should
20	mobilization be identified.
21	NRCan also recommends, should the
22	situation arise, that a more thorough characterization be
23	undertaken of the basalt to be quarried and additional
24	management measures be developed, such as the copper rich
25	portion being separated for proper disposal.

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1 The experts in the Geological Survey of 2 Canada who were involved in our review on this particular 3 topic, marine environments and processes, were Dr. Bob Taylor, Michael Li, Brian Todd and John Shaw. 4 5 With our remaining issues being the 6 impacts of the terminal on the shoreline and backshore, 7 extreme wave run-up and sea level rise. 8 The remainder of this presentation will 9 examine these in a bit more detail. 10 As the first statement says, there's 11 minimal effect of the terminal structures on the shoreline 12 that are anticipated as most of those structures are located 13 on bedrock and the responses by the Proponent on the marine 14 issues of scaring and sedimentation on the structures that 15 NRCan raised were satisfactory to our Department. 16 Little sediment is available to 17 accumulate and tidal currents would be sufficiently strong 18 to mobilize any sediment but insufficient to scar around the 19 pilings. 20 The one gap that we want to highlight 21 and one that we have captured in this second point, there 22 was new evidence presented on the impacts of these proposed 23 structures on wave dynamics on the shores of Whites Cove and 24 its immediate backshore. 25 Actually, the cover of the EIS certainly

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1 illustrates Whites Cove quite well. It is one of the only 2 non-bedrock areas and it appears to be a coarse sediment 3 beach. 4 Now it's important to note that the 5 Whites Cove Beach is aligned with waves out of the west. 6 The proposed terminal structures are to the east, which will 7 only impact waves from the north and east. 8 But no information is presented on 9 whether this proposed structure would impact wave patterns 10 on the White Coves Beach, and potentially focus waves on a 11 new part of the shore. 12 As such, a recommendation to the Joint 13 Review Panel in this matter is that any further information 14 derived from modelling these inshore wave propagation and 15 impacts on the shoreline stability during the terminal 16 design stage should be factored into environmental 17 protection as appropriate against any increased wave run-up 18 and shoreline changes. 19 Wave modelling would certainly allow 20 that alteration of wave pattern to be more fully examined and could provide locations of any anticipated wave energy 21 22 and impacts on the shore resulting from wave run-up. 23 Keeping on the wave run-up theme, our initial concern in this matter was the landward limit of the 24 25 extreme wave run-up during storms and their impact on

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1 planned infrastructure. 2 Again, I should have scanned a copy of 3 the EIS, because a picture is a 1,000 words. 4 The covers clearly shows, for part of 5 the area at least, the tree line, which certainly 6 illustrates wave run-up locations. 7 It's certainly not clear however in the 8 Whites Cove area. 9 However, the Proponent has stated that 10 land based components of the quarry infrastructure will be 11 located above the 10-metre contour elevation and above the 12 coastal flood plain. 13 However, the flood plain has not been 14 defined and furthermore, a couple of natural sediment ponds 15 exist at and just below the 10-metre contour as demonstrated 16 in the figure in their EIS. 17 It is unknown if they are subject to 18 present-day flooding or run-up. 19 Our recommendation on this matter is 20 that the definition of the coastal flood plain should be 21 clarified, and we recommend that it should include the 22 present limit of extreme wave run-up, which is one or two 23 metres, and these are extreme values for the area of the Bay 24 of Fundy. 25 On a topic that was discussed earlier

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today by Environment Canada, and one in which we support 1 2 their observations and conclusions, sea level rise, the 3 issue around this particular matter is there was a report 4 put out by the Intergovernmental Panel Committee on climate 5 change that the Proponent has cited, and we just want to put a cautionary approach to this. 6 7 The estimation used has not considered 8 several important factors, primarily the local shoreline 9 subsidence in Nova Scotia. 10 As well, there is certainly uncertainty 11 around the concept of global ice sheet dynamics. 12 As well, observed global sea level 13 changes being greater than past predicted in model changes. 14 Broadly speaking, there is insufficient 15 information at present to predict precisely a 50-year 16 projected sea level in general. 17 As a result, sea level rise could be 18 much higher than what the Proponent has estimated. 19 Our recommendation to the Panel is in 20 line with that of Environment Canada, to incorporate 21 uncertainties, the Proponent should use in their design 22 plans a sea level rise of at least 30 centimetres in 50 23 years. 24 As new information becomes available, as 25 the science evolves and is refined, design plans could be A.S.A.P. Reporting Services

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1 better constrained regarding sea level rise. 2 And we raise this again. We are 3 advocating a precautionary approach to this matter, given 4 the uncertainties associated with these estimates. 5 In summary, NRCan believes that the 6 issues we have presented to the Panel can largely be 7 addressed through appropriate measures during the design stage of the Project, should it proceed. 8 9 I would be please to respond to any 10 questions, however I am not the subject-matter expert on 11 what has been presented. 12 I will attempt to answer them to the 13 best of my abilities. Should that not be possible, NRCan, at the Panel's direction, will do undertakings and provide 14 15 those responses back to the Panel prior to the close of the 16 hearings. 17 Thank you. 18 THE CHAIRPERSON: Thank you Mr. McAllister. Gunter, you're going to start up? 19 20 PRESENTATION BY NATURAL RESOURCES CANADA - QUESTIONS BY THE 21 PANEL 22 Dr. GUNTER MUECKE: Thank you for your 23 very clear exposition. I have a couple of questions, and we 24 may as well start with the copper content of the basalts 25 now.

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1 Mr. ANDREW McALLISTER: Okay. 2 Dr. GUNTER MUECKE: The report that you 3 have submitted to us only partly addresses our concerns and perhaps we didn't express our concerns adequately for a 4 5 complete response. 6 The information that has been provided 7 covers the exposure of the basalts and the fines in the 8 settling ponds, and in terms of the marine environment, I 9 was quite aware that of course marine tailings disposal has 10 taken place. 11 Perhaps our bigger concern, and perhaps 12 we could ask whether this has been addressed yet, is that 13 the basalt fines from the processing will be used in part for soil conditioning, soils which will be used as a cover 14 15 during the remediation process. 16 I put it to you that copper mobilization 17 under those conditions, different pHs, different or high 18 organic content if organics are mixed in, is quite different 19 from the marine environment or the environment that exists 20 in the settling ponds. 21 Could you respond to that? 22 Mr. ANDREW MCALLISTER: That would be a 23 matter that I, myself, wouldn't be able to address to the 24 I don't have the technical expertise, however as I Panel. 25 mentioned earlier, I can take this question back to the

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1 expert and get you a response prior to the closure of the 2 hearings, if the Panel so chooses. 3 Dr. GUNTER MUECKE: I think that would be 4 very helpful, to have an undertaking to that effect, and so 5 I better phrase it so you can put it to them. 6 Okay. So it is how will copper mobility 7 from the basalt, fines, be affected if the material is used 8 in soil production involving organics? 9 What is the copper mobility under those 10 pH conditions, and is it of concern? 11 Mr. ANDREW McALLISTER: Okay. 12 Dr. GUNTER MUECKE: One of the things 13 that would come into play at that stage is how much of 14 basalt fines will be incorporated obviously into the soils, 15 and maybe I will ask ... 16 That's a question I haven't asked of 17 Bilcon yet, so maybe Mr. Buxton can clarify that. 18 Mr. PAUL BUXTON: I'm sorry, I missed the 19 first part of your question Dr. Muecke. 20 Dr. GUNTER MUECKE: In the production of 21 the reclamation soils, which involves using basalt fines, 22 right? 23 Mr. PAUL BUXTON: Yes. 24 Dr. GUNTER MUECKE: How much of the soil that will be used consists, approximately, of basalt fines 25 A.S.A.P. Reporting Services

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1 as opposed to other materials that you may mix in, any 2 ideas? 3 Mr. PAUL BUXTON: I don't believe that we have specifically looked at that, but I think that what we 4 5 would want to do is an agricultural expert look at that and 6 advise us as to what an appropriate mix would be in order to 7 achieve the growth of the specific plants that we intend to 8 put in various areas of the site. 9 And it may be different in different 10 areas of the site, depending what it is we're trying to 11 create there. 12 Dr. GUNTER MUECKE: Okay. So in terms of 13 the question I put to you, I have to leave it in very general terms because we do not know the mixing ratio at 14 15 this stage. 16 THE CHAIRPERSON: Mr. McAllister, at what 17 date do you think you could deliver this to us? I need to 18 put a date down here. 19 Mr. ANDREW MCALLISTER: The June 29th 20 date or earlier is feasible from NRCan's perspective. 21 Dr. GUNTER MUECKE: Another question I 22 really have is in its first response to the EIS, NRCan 23 raised a number of questions which involved the extreme 24 conditions that may occur at this coast in terms of wave 25 height, et cetera.

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1 Mr. ANDREW McALLISTER: H'm. 2 Dr. GUNTER MUECKE: And I was somewhat 3 puzzled because in its latest submission, NRCan indicated that these concerns have been met by Bilcon in their 4 5 response, and when I look at the response, there is actually 6 no concrete data there. 7 So this is more a comment than a 8 request. How do you respond ... How does the response by 9 Bilcon to those concerns... How is that response by Bilcon 10 meeting the previous concerns that NRCan has expressed in 11 that area? 12 Mr. ANDREW MCALLISTER: I would... Ι 13 guess I'll attempt to answer that in generalities. 14 With respect to the comments by the GC Atlantic experts, there were satisfactory responses on a 15 16 number of the original issues that we had raised. 17 I mentioned the sedimentation, I 18 mentioned the scouring, and there were some other minor 19 things that we had raised. 20 What we have brought forth to the Panel 21 are those, I think, more closely related to some of those 22 things that you have just brought up on, the extreme weather 23 conditions and... 24 This is largely what this presentation 25 over the remaining issues that we have are built around, A.S.A.P. Reporting Services

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1 namely the landward limit of extreme wave run-up, sea level 2 rise, wave propagation, those sorts of things. 3 So I think as I mentioned, responses 4 have been given that are satisfactory, and NRCan has these 5 remaining issues I think that still fall within those 6 weather and extreme weather event parameters that you are 7 looking for. 8 Dr. GUNTER MUECKE: Okay. So maybe it 9 was just unfortunate wording in the response, is that what 10 you are saying? 11 Mr. ANDREW McALLISTER: Well, I would say 12 that I think our concluding remarks... As we said, a lot of 13 things were satisfactory, and we believe that the remaining 14 issues that we have can be addressed through measures through the design phase. 15 16 Dr. GUNTER MUECKE: What role does NRCan 17 play in terms of emergency planning and response, and what I 18 have in mind here is... 19 And I have asked this previously of 20 Environment Canada, but in order to be responsive to possible accidents and spills, it is necessary to have a 21 22 good grasp of the nature of the coastline, the nature of the 23 sediments, and not only at the site itself but in the 24 immediate vicinity. 25 So my question is, is NRCan satisfied A.S.A.P. Reporting Services

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1 that the Proponent has provided enough information on that 2 for quick and efficient responses to any oil spills, et 3 cetera? 4 Mr. ANDREW McALLISTER: I thank you for 5 that question. First off, I would preface it by saying 6 NRCan doesn't have any decision-making role in emergency 7 planning and response. 8 That topic in itself, we briefly touched 9 upon it in an earlier submission. I'm just putting it out 10 that it is... The coastline was such that certainly 11 emergency response planning was an important consideration. 12 Typically what we can do in these sorts 13 of things as emergency planning response unfolds, NRCan is certainly available to provide its expertise on these 14 15 manners as these measures evolve. 16 With respect to what we're here for, the 17 level of information that was in the EIS, I don't think 18 NRCan in its submission was looking or within its mandate 19 providing comments on whether it was sufficient for 20 emergency planning or not. 21 It was largely focussing-in on the 22 marine processes and environment. 23 Dr. GUNTER MUECKE: So you're saying we 24 cannot look to NRCan for answers to that? 25 Mr. ANDREW McALLISTER: For emergency

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1 planning and response, I think that we could look to 2 NRCan... You mentioned about building baseline information 3 and those sorts of things. 4 Dr. GUNTER MUECKE: Yes. 5 Mr. ANDREW MCALLISTER: And NRCan does 6 have information and research and science that if requested, 7 they would certainly be able to provide that to such an 8 endeavour. 9 Dr. GUNTER MUECKE: Okay. Thank you. 10 Dr. JILL GRANT: I'd like to follow up on 11 the question of emergency response because in the earlier 12 submission from NRCan, the issue of the potential for 13 aggregate spills in the water, either from some problem with the conveyor or problems with loading, was raised, and I 14 15 don't know that there was any comment in it in the 16 submissions. 17 I'm just wondering whether you could 18 give us an idea of the effects of potential spills in the 19 receiving waters and in the near-shore environment and what 20 effects there would be of trying to remove those spills, 21 should one occur as an accident during the Project? 22 Mr. ANDREW McALLISTER: I quess first 23 off, the question if I understand correct is seeking our 24 views on what would occur in the event of a malfunction and 25 accident in which there was basalts that entered into the

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1 marine environment. 2 Given the scope of our review, I 3 don't... I keep looking through our earlier comments as to exactly where that was derived from, but at least initially, 4 5 I don't think that we would be in a position, or at least 6 myself, to be able to indicate what those effects would be, 7 and I wonder if... 8 Certainly some of those effects may be 9 in areas that are outside of NRCan's mandate, for example 10 effects on fish habitat, or effects such as things viewed as 11 deleterious substances under the Fisheries Act, which could 12 be under Environment Canada's purvey. 13 So that is how I guess I would qualify 14 that, and I guess if you would want further information in 15 that regard, I can go back to our commentary and provide you 16 with further information with respect to what they were 17 getting at, that expert. 18 Dr. JILL GRANT: That may be enough 19 already, thank you. 20 Mr. ANDREW McALLISTER: Okay. 21 Dr. JILL GRANT: The other question I 22 have is a bit more general, and that is what NRCan's position would be on the role of non-renewable resources in 23 24 a sustainable development approach? 25 Mr. ANDREW McALLISTER: Well first of

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1 all, I realize it's a general question and I may be giving 2 you a project-specific answer, but NRCan, its role in this 3 Project, as we stated we have no regulatory or decision-4 making role. 5 We are contributing expertise to the 6 environmental assessment process, and the environmental 7 assessment is a means of integrating environmental factors 8 into planning and decision-making processes in a manner that 9 promotes sustainable development, and that's what we view as 10 our linkage or our contribution as far as stable development 11 perspective. 12 Broadly speaking, the... I don't myself 13 have any departmental position on that matter, and I don't 14 know if we have one. 15 We certainly are participating in this 16 process as an expert authority, in a process that we feel 17 has an objective of sustainable development. 18 THE CHAIRPERSON: Okay. I think that's 19 the end of the questions for now. We also realize that we 20 will have another opportunity tomorrow during the 21 hydrogeology section, so we now turn to Mr. Buxton. 22 PRESENTATION BY ENVIRONMENT CANADA - COMMENTS BY THE 23 PROPONENT 24 Mr. PAUL BUXTON: I have no questions Mr. 25 Chairman, but perhaps two comments if I may.

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NATURAL RESOURCES CANADA (COMMENTS BY THE PROPONENT)

1 Dr. Grant asked about aggregate spills, 2 and I think we did make an attempt to cover that in the EIS 3 as much as... First of all, I think we noted that all 4 5 parts of this operation are computer controlled and can be 6 shutdown instantly, so if something goes wrong with the 7 operation, a button is pushed and the conveyor stops. 8 Typically on conveyor systems, there is 9 a minor amount of spillage. This facility will have 10 spillage trays along the entire ship loader so that if there 11 is anything that inadvertently spills off the conveyor, it 12 will not get into the marine waters. 13 Secondly, if I could just make a comment 14 on the emergency response plan, the intent really of an 15 environmental assessment is to establish whether or not an 16 emergency response plan is required, and I think that we 17 have made it very clear in the EIS that we believe one is 18 required, and all the details of such a plan will be 19 provided at a later date. 20 So I think we've already established the 21 need for a plan, and we have stated that clearly, and we 22 will be required to produce an emergency-response plan. 23 But I have no questions, thank you very 24 much Mr. Chair. 25 THE CHAIRPERSON: Thank you Mr. Buxton. A.S.A.P. Reporting Services

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1 Now we turn to the audience. Are there 2 any questions arising from the audience? Mr. Stanton. Ιf 3 there are others planning, would you please line up like before, as before? 4 5 PRESENTATION BY NATURAL RESOURCES CANADA - OUESTIONS BY THE 6 PUBLIC 7 Mr. KEMP STANTON: You determined the 8 likely pH levels of the water. In piles of stored rock, 9 they are bound to have some blasting residue in them after 10 they have been crushed, and if there's nitrogen there, it 11 may make nitro gas, and after weeks of storage, how would 12 you determine the pH balance, in order to determine how much 13 copper would be leached out? 14 Mr. ANDREW McALLISTER: I myself wouldn't 15 be able to answer that question. I'm not a geo-chemist. 16 We can certainly take that question at the Panel's direction 17 and get an answer if required. 18 Dr. GUNTER MUECKE: I think you... And 19 it's not my place perhaps to do this, but it has been 20 indicated that the aggregate will be washed, and that should 21 be kept in mind when asking this question, and Mr. Stanton, 22 if I can slightly reformulate that question, it would be: 23 "Would you anticipate pH changes in the washed aggregate and how would that affect the copper leaching?" 24 25 Is that a fair reformulation Mr.

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1 Stanton? 2 Mr. KEMP STANTON: Also, I was thinking 3 that they are going to be reusing a lot of this water, so 4 after they wash the rock with it once and suspend the 5 nitrogen in it, then they'll wash the rock with it again, 6 and again. 7 Dr. GUNTER MUECKE: That's a very good 8 point Mr. Stanton. Yeah, so we would like to have some 9 clarification on that. 10 THE CHAIRPERSON: You formulate an 11 undertaking then. 12 Dr. GUNTER MUECKE: So the undertaking 13 would be, as Mr. Stanton mentioned, what will be the role of 14 explosive residues in the pile in terms of the changing the 15 Ph, and I would add Eh environment, and how would that 16 affect copper leaching. 17 THE CHAIRPERSON: Mr. McAllister, we'll 18 put the same date down, the 29th. Sooner is better, but no later than, okay? 19 20 Mr. ANDREW McALLISTER: Okay. I just 21 want... I don't want to speak for the expert, but the first 22 part of that question dealt with explosive residues, so 23 we'll have to... 24 If he does not necessarily that 25 expertise on that side, we may need to collaborate with A.S.A.P. Reporting Services

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NATURAL RESOURCES CANADA (QUESTIONS BY THE PUBLIC)

1 another department that does have that. 2 Dr. GUNTER MUECKE: H'm. 3 THE CHAIRPERSON: Sister Barbara? SISTER BARBARA: I'm Sister Barbara and 4 5 I'm in Digby Neck, at Rossway. 6 Given the current size of the proposed 7 mega-quarry, in your expert opinion, do you think there's 8 enough basalt rock to keep the Whites Point Rock Quarry and 9 Marine Terminal operating until the year 2057, or would a 10 larger quarry be required during the 50-life expectancy of 11 the Project? Would you be able to comment on that? 12 Mr. ANDREW MCALLISTER: No, I wouldn't. 13 In NRCan's review of this Project, we were an expert Federal 14 Department and we looked in the areas of hydrogeology, 15 marine environments and processes, seismicity and the 16 aqueous geochemistry of waste rock. We did not look into 17 the area that you have posed your question on. 18 SISTER BARBARA: Mm-hm. So you have no 19 idea how much rock will be going from that site? 20 Mr. ANDREW MCALLISTER: In the context of 21 your question, no, I don't. 22 SISTER BARBARA: No. Thank you. 23 THE CHAIRPERSON: Okay. If there are no 24 further questions, we'll ask Mr. McAllister to step down, 25 with thanks.

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PARTN. FOR THE SUSTAINABLE DVLP. OF DIGBY NECK AND ISLANDS

(Ms. LISA MITCHELL)

1 And we'll move to the next presentation 2 which is Lisa Mitchell from the Partnership. 3 Thank you, Mr. McAllister. PRESENTATION BY THE PARTNERSHIP FOR THE SUSTAINABLE 4 5 DEVELOPMENT OF DIGBY NECK AND ISLANDS SOCIETY - Ms. LISA 6 MITCHELL: 7 Ms. LISA MITCHELL: I just caught a 8 glimpse of Mr. McAllister's two-day old baby that he left 9 behind in Ottawa to come here, so... It was on his computer 10 screen. 11 THE CHAIRPERSON: That's known as 12 commitment. 13 Ms. LISA MITCHELL: (Laughing) It sure 14 is. 15 Thank you very much, Mr. Chair and Panel 16 Members. My name is Lisa Mitchell, and I am with the 17 Partnership for the Sustainable Development of Digby Neck 18 and Islands Society. Can I sit further? 19 Almost five years ago, I was contacted 20 by a woman from Sandy Cove who expressed concern about a 21 mega-quarry that was proposed for a coastal area near her 22 home. She said there was to be some type of Environmental 23 Assessment, and she and her neighbours were confused, and 24 they were very concerned. They needed help, and they 25 wondered if I could assist. A.S.A.P. Reporting Services (613) 564-2727 (416) 861-8720

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1 I hesitated. As an environmental 2 lawyer, my forte was writing legislation and working with 3 farmers in the Annapolis Valley on environmental management 4 plans. It was not about assessing the impacts of quarries. 5 I did agree to assist the community 6 group that became known as the Partnership, or the Society, 7 and I've come to know a group of people who are intelligent 8 and compassionate citizens committed to the long-term 9 sustainability of this region. Their commitment goes far 10 beyond what one reporter described as an NIMBY, or "Not in 11 my Backyard" issue. Their backyard is the Bay of Fundy, and 12 their commitment is to the broad community of species, both human and non-human, that make up and is supported by the 13 14 Bay of Fundy ecosystem. 15 All of these people are more than 16 capable of sharing their knowledge of this area, and the 17 impacts that may result from the proposed Project. I'm not 18 before you to speak on their behalf. 19 My role over the past four years has 20 been as a facilitator. I've tried to connect the community 21 members to other organizations, such as the Sierra Club, the 22 Clean Annapolis River Project, the Canadian Parks and 23 Wilderness Society, the Ecology Action Centre and the 24 Council of Canadians. All of these groups are represented 25 at these hearings.

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1 I've also worked to link the community 2 to experts who can provide support and substance to their 3 concerns. 4 My presentation this afternoon is 5 intended to serve as an outline. It is to provide you with 6 a framework of some of the key areas that our experts, 7 whether their knowledge is derived from academic study or 8 traditional experience, will bring forward over the next 9 seven days. 10 The Proponent says that communities on 11 Digby Neck are dying. Our presenters will show that Digby 12 Neck is not a series of communities at the brink of death 13 that can only be saved by a quarry. There are many strong, 14 small-scale economies and resource-based industries that 15 have and can continue to provide term sustainability for 16 this region. 17 Many of the community members, including 18 Marilyn Stanton and Danny Mills, will speak to this, as well 19 as experts, including Dr. Michael Corbett, Janet Larkman, 20 the former Executive Director of the Western Valley Development Authority, Miss Linda Pannozzo from Genuine 21 22 Progress Index will also come to address some of these 23 issues in the context of the full-cost accounting method 24 that their organization uses. 25 The Proponent says that the impacts on

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1 tourism will not be significant, because primarily the 2 quarry cannot be seen from the highway. Tourism in this 3 area is not entirely centred on Highway 217. It depends 4 very much on the pristine nature of the local environment, 5 and the view from the water.

6 Judith Cabrita, the former Executive 7 Director of the Tourism Industry of Nova Scotia, and Ann 8 Goddard, who has been co-owner of the Mountain Gap Inn in 9 Smith's Cove for over 30 years, will speak to this concern. 10 It is the Proponent's position that the 11 long-term impacts on lobster, the fishery and the local 12 ecology will be insignificant. Mr. Kemp Stanton, you all 13 know, will speak from generations of experience working on and near the Bay of Fundy, and he will articulate the 14 15 uncertainty that exists around the negative impacts on the 16 species that support both his livelihood, and the diversity 17 of the Bay.

18 Andy Sharpe, from the Clean Annapolis 19 River Project, will provide a detailed analysis of a number 20 of potential impacts from this Project, including visual 21 impacts, impacts on tourism, terrestrial plant species at 22 risk, and others that the Proponent has said will be 23 insignificant. Andy's presentation will challenge the 24 Proponent's studies, and counter their arguments, 25 demonstrating that there are many significant adverse

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1 affects from this Project that will not be mitigated. 2 The Proponent has applied adaptive 3 management as their primary response to any uncertainty in the Project impacts, including ones that may result in 4 5 irreversible damage. Put simply, they will monitor and they 6 will adapt. In the 140 references to this theory, they give 7 very little substance to support the effectiveness of their 8 approach. 9 Dr. Peter Dunker (ph) will be presenting 10 to the Panel on adaptive management with an analysis of the 11 validity of the Proponent's approach. 12 In a similar way, the Proponent has 13 cited the precautionary principle, whenever they invoke any 14 measure that goes beyond regulatory requirements. We've 15 asked Dr. David VanderZwaag to speak to the role of the 16 precautionary principle, particularly in the context of 17 endangered species. 18 We've also asked Dr. Mike Stokesbury to 19 provide input on the critical state of the inner Bay of 20 Fundy Atlantic salmon, and it's habitat to demonstrate the 21 significant risk that exists where there is any human 22 influence near waters used by that species. 23 The Review Panel has indicated that it 24 will consider whether the Project will make a positive, 25 overall contribution to sustainability. Dr. Robert Gibson

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1 and Dr. Meinhard Doelle will speak to the role of 2 sustainability appraisal in the context of Environmental 3 Impact Assessment. 4 Their presentations will demonstrate 5 that the Proponent's Proposal does not contribute positively 6 to the long-term sustainability of this region. 7 The onus to provide evidence that proves 8 that this Project will not cause significant adverse effects 9 to the environment and will contribute in a positive way to 10 the sustainability of this region is on the Proponent. 11 The Environmental Impact Statement says 12 that there will be no significant adverse effects. It is 13 our position that the Proponent has not brought forward the 14 verifiable evidence necessary to support that conclusion. 15 We trust that our experts will be able to speak to this 16 effectively. 17 The pervasive theme for our presenters 18 over the next seven days is that of uncertainty. There is 19 uncertainty around many of the potential impacts of this 20 Proposal. Will blasting near the coast cause marine mammals 21 to leave the area? Will an already stressed lobster fishery 22 reach a tipping point if there is a polluting event from the 23 site? 24 How will the terrestrial species on the 25 site respond to the changes in their environment? Will one A.S.A.P. Reporting Services

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of the vessels strike a whale? 1 2 In some instances such as the subtle 3 impacts of blasting on marine mammals and invertebrates, the 4 science itself appears to be uncertain. In other instances, 5 such as the impacts on species like the Harlequin duck, the 6 uncertainty stems from the lack of scientific rigour in the 7 Proponent's own studies. 8 In yet other circumstances such as the 9 potential for ship strikes with whales, the Proponent's 10 Plans for mitigation create uncertainty. Looking across the 11 surface of the ocean with binoculars to determine if there 12 are any whales present reminds me of a quote from the late 13 Dr. Carl Sagan: 14 "Absence of evidence is not evidence of 15 absence". 16 Is it the uncertainty, particularly when 17 the uncertainty is coupled with the risk of irreversible 18 damage, that makes this Project unacceptable at this time, 19 in this location, and with this Proponent. In fact, I would 20 argue that the risk for adverse environmental effects from 21 this Project may be magnified, because the Proponent has 22 already demonstrated that they are unable or unwilling to 23 meet minimum requirements as in the EIS Guidelines. 24 This does not bode well for the 25 environment, when the Proponent is operating in a Province

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1 that uses self-regulation as its primary means of compliance 2 with environmental laws. Mitigation is not effective if it 3 is not in effect. The many community members and other 4 5 concerned citizens in Nova Scotia who have committed their 6 time, their energy and their own money to participate in 7 this process over the past four years are concerned that 8 Review Panels do not reject projects, but only try to 9 minimize the impacts of those projects. 10 Yet in the face of that cynicism, they 11 have wholeheartedly jumped into this long, gruelling, 12 complex process. They have asked, and I have told them that 13 there is no law that prevents a Review Panel from recommending rejection of a project. 14 15 I expect that none of us who sit in 16 these seats envy the task ahead of you as a Review Panel. I 17 hope that the efforts we have taken to bring forward experts 18 from both the academic and traditional arenas will at least 19 assist you in your evaluation of the Proposal. 20 It seems that it is human nature to 21 underestimate our negative impact on the world we inhabit. 22 We have dammed our rivers, cutting off migration routes for 23 fish; we've filled our harbours with sewage; we've cleared 24 out forests, eliminating entire ecosystems in one pass; 25 we've sprayed toxic substances into our air, contributing to

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1 the destruction of species and causing negative impacts on 2 our own health; we over-use, we over-consume, and we 3 generally overestimate our ability to control, manage and repair the environment. 4 5 As a society, we no longer have the privilege of consuming our natural resources in a way that 6 7 completely disrespects their inherent value and our debt to 8 future generations. As Carl Safener reminds us in his book, 9 "Song for a Blue Ocean", the economy is a wholly-owned 10 subsidiary of the environment. Thank you. 11 THE CHAIRPERSON: Thank you, Ms. 12 Mitchell. 13 Pause - Applause ___ 14 PARTNERSHIP FOR THE SUSTAINABLE DEVELOPMENT OF DIGBY NECK 15 AND ISLANDS SOCIETY - Ms. LISA MITCHELL - QUESTIONS BY THE 16 PANEL: 17 Dr. JILL GRANT: Ms. Mitchell, how would 18 you define what it takes to take an ecosystem approach in a 19 project like this, and can you give us your ideas of what 20 would have been required to, to take that kind of an 21 approach? 22 Ms. LISA MITCHELL: I think that 23 primarily it means that the Proponent had to recognize from 24 the onset of the Project that there is an interconnectedness 25 between all aspects of the Project and the ecosystem that

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1 it's impacting, and I couldn't explain to you specifically 2 how you would carry this out, but the need to ensure that 3 whenever one is assessing the impacts, or the potential impacts on the Project, that they're not, that you're not 4 5 separating the various components from the ecosystem. 6 But yet, as I think was raised the other 7 day, the concept of recognizing that there are direct 8 impacts and there are indirect impacts, and those indirect 9 impacts generally result from impacts on other aspects of 10 the supporting ecosystem for each valued environmental 11 component. 12 Dr. JILL GRANT: Thank you. And my other question is around the CLC. I wonder if the Partnership has 13 been involved at all in the process of participation through 14 15 this. Were any of the Partnership members involved in the 16 CLC, and whether there is any comment on that? 17 Ms. LISA MITCHELL: Unfortunately, Dr. 18 Grant, I'm not the person to answer that because my 19 involvement with the Partnership has not involved, in any 20 way, a connection to the CLC, given that I'm not a community 21 member. I live in Grand Pre. 22 THE CHAIRPERSON: Ms. Mitchell, I'd be 23 interested to know a little bit more about the Partnership. 24 When was it formed? 25 Ms. LISA MITCHELL: The Partnership came

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together, I believe it was in 2002, shortly after they 1 2 became aware, or shortly after the community became aware 3 that there was a proposal for a 3.9-hectare quarry. 4 THE CHAIRPERSON: Is it fair to 5 characterize it as a response to the quarry? It's a 6 organization with a mission, more or less. Am I 7 over-characterizing it? 8 Ms. LISA MITCHELL: I think it's very fair to say that the Partnership developed as a response to 9 10 the quarry proposal. I think that they have tried to expand 11 their focus to include broader considerations, but that is 12 their primary concern. 13 THE CHAIRPERSON: How many members are 14 there in the Partnership? How do you establish membership? 15 Ms. LISA MITCHELL: Again, I'm not 16 necessarily sure I'm the right person to answer that 17 question, given that I'm a consultant to the Partnership, 18 but I believe, at last calculation, that there were somewhere in the order of 3- to 400 members, and those 19 20 people become members simply by purchasing a membership, 21 recognizing that they support the goals of the Partnership. 22 Other people who are very active in the 23 Partnership are a smaller group of perhaps maybe 30 to 40 24 people. 25 THE CHAIRPERSON: Where would the

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1 membership come from? What are the origins of the people? 2 Are we talking about only from the Neck and Islands? Are we 3 talking about Americans who vacation here? What is the cross-section of the membership? 4 5 Ms. LISA MITCHELL: I believe that the membership is very broad. It would include a lot of people. 6 7 Probably the bulk of the membership is based in the region, 8 in this particular, but certainly there are members across Nova Scotia, and there would be some members from the United 9 10 States, as well, particularly those that are seasonal 11 residents here, but may reside part of the time in the U.S., 12 and there may be a few others, as well, but I'm not sure of 13 the details on that. 14 THE CHAIRPERSON: Do you have any idea 15 how many adults there are in Digby Neck and the Islands, and 16 what percentage of that, of your membership that represents? 17 Ms. LISA MITCHELL: Did you ask how many 18 adults there are? 19 THE CHAIRPERSON: Well, I mean, I'm 20 trying to get some sense of how broadly embracive this is. 21 Is this a small splinter group? Is this a major group? I 22 have no sense of that. 23 Ms. LISA MITCHELL: Would you allow me to 24 call on one of the community members that is more directly 25 involved with the membership, rather than myself as a

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1 consultant, to provide you with that information, because I 2 certainly think we could provide you with lots of detailed 3 information on the actual makeup of the Partnership, who is involved, how many, where they come from. 4 5 THE CHAIRPERSON: Maybe we could just 6 take that as an undertaking, where ---7 Ms. LISA MITCHELL: Certainly. 8 THE CHAIRPERSON: ---you and your 9 colleagues could put this information down for our benefit. 10 I'd be interested to know, do you hold regular meetings, 11 and if you do, what the attendance at those meetings is. 12 How would you... 13 Well, I've already asked you how you'd 14 characterize your organization, so it's a goal-specific 15 organization which is really directed at... 16 Well, is it fair to say it's directed at 17 combatting this quarry, or maintaining a way of life? Ι mean, how would you... I don't want to put words in your 18 19 mouth. I'd prefer you to do that. And how is it funded? 20 Ms. LISA MITCHELL: Primarily it is 21 funded out of fund raisers by the individuals, so they do, 22 you know, an annual lobster dinner whereby local fishermen 23 provide lobster for free. They do auctions and so forth at 24 those dinners to raise money. 25 THE CHAIRPERSON: Okay. Could I ask you

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1 to take an undertaking, return that information to us? 2 You've got a sense of the questions I'm interested in. 3 I'm trying to get an understanding of 4 the Partnership. It obviously plays a prominent role in 5 these activities, and so I'm from Halifax, and it's just a 6 name to me at the moment, okay? 7 Ms. LISA MITCHELL: Absolutely. 8 THE CHAIRPERSON: Okay. Do I have any 9 questions? No? Okay. Mr. Buxton? 10 Mr. PAUL BUXTON: I have no questions, 11 thank you, Mr. Chair. 12 THE CHAIRPERSON: I'm going to ask the 13 audience, but judging by the applause, everybody there is 14 familiar with it, so are there any questions? No, I'd be 15 surprised if there were. Correct? Okay. Thank you, Ms. 16 Mitchell. 17 Ms. LISA MITCHELL: Thank you. 18 THE CHAIRPERSON: The next person is Kemp 19 Stanton, please. 20 --- Long pause 21 PRESENTATION BY THE PARTNERSHIP FOR THE SUSTAINABLE 22 DEVELOPMENT OF DIGBY NECK AND ISLANDS SOCIETY - Mr. KEMP 23 STANTON: 24 THE CHAIRPERSON: Mr. Stanton, any time 25 you're ready. A.S.A.P. Reporting Services

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1 Mr. KEMP STANTON: Sorry about this. We 2 only really need one graphic. 3 I'm supposed to be presenting on 4 traditional knowledge, and I'll try to do my best. 5 THE CHAIRPERSON: Can I get you to pull 6 your mike in? 7 Mr. KEMP STANTON: The fisheries in the 8 area influenced and most affected by the quarry would 9 basically be lobstering, herring seining, herring wares, set 10 nets for herring, hand-lining, long-lining, cod nets, 11 draggers, scallop and fish, urchin divers and draggers, 12 beach harvesters, dulse, rockweed, periwinkles, the like. 13 Possibly more in the future. We may have welts, snails, 14 razor clam markets. We don't know what we might be after 15 within 50 years. 16 I should mention that some of these 17 vessels are mobile; some while they're fishing; some are 18 fixed; and others are a combination of both. So we have a 19 wide variety of boats and manoeuverability issues with them. 20 Tides, winds and currents, often they 21 greatly influence their maneuverability, and the exactness 22 with which they control the positioning of the boat, or 23 their gear. In other words, they can't always put their 24 gear or their boat exactly where they want, when they're 25 fishing.

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1 There seems to be little certainty as to 2 the uses the Terminal may be put to, besides loading basalt. 3 The lease, I believe, allows for the import or export 4 movement of other goods on and off the site. I, however, 5 will limit my comments mostly to the Marine Terminal and the 6 movement of aggregates. 7 Even with present ship sizes the way 8 they are at the Terminal, loaded, and at low water, there's 9 very little clearance between the bottom of the ship and its 10 sides, and the rocky bottom of the ocean at that Terminal, 11 when they're laying there. And that's an uneven bottom, and 12 from my experience of fishing there over 40 years, I think 13 there are boulders in that area. 14 I can't get my graphics yet, but there 15 are to be moorings for the ships. They'll have buoys, 16 chains and ropes. This doesn't seem to be recognized by the 17 DFO as using up space on the bottom of the ocean. They only 18 considered the Terminal, itself; not the 60 to 80-tonne 19 blocks that may be required to hold the ships there. 20 There are supposed to be intermediate 21 buoys and ropes that have to have some type of block on the 22 bottom to hold them. I'm not quite sure. We expect them to 23 be at the 500-metre mark, to mark out the safety zone for 24 marine mammals. 25 There's also to be buoys, chains, ropes

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1	and blocks at 2,500 metres, and these will have to be rather
2	substantial so they do not go under water in the strength of
3	the tide, and to be able to be seen clearly at a distance of
4	2,500 metres when the tide's running, anything under six
5	foot in length, and probably six feet around in anything but
6	clear conditions would not, in my opinion, be able to be
7	seen.
8	As fishermen, we will have to keep our
9	gear clear of these, and according to the maps I've been
10	able to find from Bilcon, this will extend for 7.5
11	kilometres along the coastline, and will extend off to 2,500
12	metres. It takes in a lot of our fishing area for
13	entanglement purposes.
14	There will be a ship coming in and going
15	out, and from my experience, sometimes it will have to come
16	in from up the shore according to tide and wind conditions.
17	Sometimes it'll come in from down shore.
18	Sometimes, if the weather hasn't quite
19	cleared enough yet or the sea conditions haven't quite
20	cleared enough yet, it may have to jog back and forth,
21	waiting for conditions to improve.
22	There may be tugs which, while the ship
23	is there, if it's poor conditions, they will have to wait in
24	the area and may jog back and forth, also seriously
25	interfering with my gear.

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1 There will be a work boat that sometimes 2 will be criss-crossing the area looking for whales or marine 3 mammals and maybe doing maintenance on all these buoys. 4 That'll be going through my gear. 5 And the time of blasting and the time of 6 ship arrivals is not dependable because of sea conditions 7 and because of fog conditions, so I will not know whether I 8 can operate in that area or not. 9 And we, as fishermen, will have to deal 10 with these difficulties while working in bad weather, strong 11 tides, poor visibility, and at the convenience of the 12 Proponent. 13 He decides when the ships come in. He 14 decides when to blast. He decides when he moves buoys, not 15 us. 16 This is added to all the activities. 17 already taking place in that vicinity. 18 Around coves and points in this area, 19 when the tide is running, even though there is little wind, 20 the water is seldom still. The water travelling at high 21 speed over uneven bottom in these areas, the currents may 22 change their flow within a few feet. 23 You can have 180 degree turnabout in the 24 tide just because of the turbulence and the eddies in this 25 area.

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1 With trap buoys partly submerged in 2 these conditions, spotting harbour porpoise at anything more 3 than 200 metres is... If I was looking for them, I would 4 consider it almost impossible to see them. 5 Weather prediction is more unreliable 6 than normal in our area. We very often receive weather 7 predictions that are off by 60 to 80 percent over a short 8 period of time just because of the difficulty of predicting 9 weather when cold masses and warm masses of water are 10 meeting in the area. Fog moves in quickly. Only a minor 11 12 change in the wind can bring fog that is filling the St. 13 Mary's Bay over the hill and, within 5 to 10 minutes, you 14 can't see 40 feet, so it's unreliable. 15 It's unpredictable because if you can't 16 depend on the weather forecast for wind, you don't know when 17 the fog will be coming. 18 Swell and fairly severe swell can 19 appear, not from local conditions, but from conditions in 20 the Atlantic. There doesn't have to be any wind. If 21 there's been a storm in the Atlantic, all of a sudden you 22 will notice a swell building with no predictability to it. 23 This will render ships and blast 24 schedules unreliable. Even if they have a fairly good idea 25 what the weather's predicting, it's hard to predict the

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(Mr. KEMP STANTON) swell along with it. With all these obstacles and uncertainties, we can continue operations, but it wouldn't make economic sense if I'm dealing with all these obstructions, I'm dealing with times I can't go there, I'm losing a lot of gear because once my gear gets wound up in these big buoys, I can't lift it. I have to just give up on it. There is some existing documentation, mostly on commercial and endangered species, in the Bay of Fundy. Some commercial, some not, have never been studied properly, it at all, and especially locally.

It isn't always predictable that the creature you think is in the Bay of Fundy will be there because the warmer Bay, St. Mary's Bay, is so close. You can't generalize as to what will be in our area necessarily by what is in the rest of the Bay.

Even lobster, which is exceedingly important, has never really been studied as far as blast effects goes. Herring. I heard one of your experts say that light would attract it.

Yes, it will, but only for a short time, and if a light comes on quickly, the herring will move so fast that you'll just see scales left in the water. They're damaging themselves.

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(Mr. KEMP STANTON)

1 Light may attract them for a short 2 period, but eventually they will leave the area, and it will 3 be a long time before they come back. 4 Nobody knows what we call sand fleas 5 just what you get in a trap when you haul it up. It's eaten 6 the bait and it drops on your washboard and it's all less 7 than an inch long. 8 Nobody has studied it to see what 9 effects this may have or may not have on them. 10 Snails, mussels and a majority of plants 11 have never been studied for what effects this will have. 12 Just mostly what people notice most. 13 The majority of plants, and especially 14 not the ecosystem as a whole, are understood at all. You may have a small idea, but complexity makes it... We aren't 15 16 that smart. 17 Examples of on land searches made to 18 locate endangered plants, one totally unexpected. Did they 19 look in the ocean to see what marine species might be there 20 that just were totally unexpected? 21 The Proponent seems to be fixated on the 22 He does not understand or pay enough attention to our land. 23 ocean environment, we think. 24 Since we know so little about what 25 creatures inhabit the area, their densities, whether or not A.S.A.P. Reporting Services (613) 564-2727 (416) 861-8720

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they're in decline, their relationships with one another as 1 2 a whole and the consequences of changes to any one of these 3 connections, we would think that the precautionary principle 4 should say do no harm. 5 If you don't know what you're doing may do harm, don't do it. 6 7 Past experience has shown the local 8 people, and particularly fishermen, to mistrust Government 9 promises, Regulations, agreements and enforcements in the 10 extreme. We don't believe anything they say any more. 11 We were told that the Digby Wharf would 12 be sold off to a private group and that it would be kept up 13 and that everything would be wonderful. It's a regular 14 disaster now for fishermen. Go down and look at the wharf. 15 It is not maintained. 16 Less than a year ago, there was a 17 drilling operation and a pipeline that was abandoned. The 18 junk was left in place on the bottom. 19 The agreement when that project started 20 was all materials were to be removed from the bottom of the 21 ocean, but the Government unilaterally let the Proponent out 22 of that agreement and agreed that they wouldn't remove the 23 junk. 24 We were told that when we voted no to 25 Sunday shopping, we thought that was a democratic thing, but

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now there's Sunday shopping. We didn't vote for it, but 1 2 they told us it wouldn't happen if we voted against it. It 3 did. 4 DEL could find no sediment pond 5 quidelines when we asked them when they were building their 6 sediment pond and we didn't think it was being done 7 properly. We asked DEL to provide us with guidelines on 8 that. 9 We were told that there was only one 10 copy in Nova Scotia, and it took them two months to find it. 11 For people that are supposed to be regulating these things, 12 one copy of the quidelines in Nova Scotia and six months 13 even to locate it, or two months to locate it, was 14 ridiculous. It was an insult. 15 I'm sort of rushing through this, and 16 I'll try to make... I didn't get this one guite right. 17 The first indication we had that there 18 was a quarry on the way in my village, anyway, and we are 19 the closest fishing village to this quarry. Not exactly. 20 That may not be exactly right. 21 To get to the quarry site, it is the 22 shortest distance to get there from our fishing village. 23 You'd have to go across land to get there shorter. 24 The first indications that we had that 25 there was a quarry coming was when Gordon Baltzer, who was

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1 our MLA at the time and Minister of Fisheries, we asked him 2 to come down and please support us in having our wharf 3 repaired. 4 He informed us that we didn't need 5 repairs on our wharf because we would be able to lay our 6 boats to the new terminal that was going in at Whites Cove. 7 That's the first indication that we had, any of this. 8 It was disappointing to know and to find 9 out later that this isn't a wharf. He had misunderstood the 10 whole thing. You can't lay small boats to it or any amount 11 of small boats, and especially in bad weather. 12 He had just misinterpreted the whole 13 thing, but he was our MLA and he was also, at the time, 14 Minister of Economic Development. 15 This is getting into attitude, so we 16 never really got informed. Then, when we went to the CLC 17 meetings, and we did attend some of, not the first, but some of the later CLC meetings, and they had an archaeologist 18 19 there. And we questioned him about the village that used to 20 be at the site. 21 And his response was, he told us that no 22 one of any historical significance had ever lived there and 23 nothing of any historical significance had ever taken place 24 there. 25 And we thought there had been, so we

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1 asked and he said it's a fishing village just like thousands 2 of other fishing villages all around Nova Scotia. There was 3 nothing special about it. 4 When asked why he did not consult local 5 people about what might be there or what might have took 6 place there, we were told he didn't because we were likely 7 to lie to him. We were not likely to tell him the truth. 8 He had to have empirical knowledge in order to make a 9 determination. 10 I didn't really think that was a good 11 use of traditional knowledge, but I'm only a fisherman. 12 I was invited to Bilcon's office. I 13 can't remember the date, but it was in the early stage. And 14 I wasn't directly invited by Bilcon. They called a group of 15 fishermen, and there was supposed to be six to seven 16 fishermen at a meeting, so I went. 17 And I waited outside the office for an 18 hour and 10 minutes, and none of the other fishermen showed 19 They said it was bad weather or bad planning, or some up. 20 didn't arrive. 21 And the only people there were three 22 Bilcon employees, and I decided it wasn't advisable for me 23 to go in with three Bilcon employees and talk to them 24 because I already knew that they had started a lawsuit 25 against a lady for something she said and that they had

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1 started a lawsuit against the newspaper for something they 2 said. 3 So for my own protection, I just did not 4 feel comfortable being alone in a room with three other 5 people that were prone to thinking about lawsuits. 6 And still, sometimes, when I'm out in 7 public and talk about this, anything I say, I usually say, 8 "I believe" first so that I'm sure, or fairly sure, that I 9 can't be sued. 10 Another item that sort of I heard Mr. 11 Buxton say, and if I'm correct... I may not be. 12 I looked into it three different times, 13 and I think the first test blast that they planned at the 14 original 3.9-hectare site was to have very close to 50,000 pound of explosives in the ground and it was to be exploded 15 16 in 1,000 pound charges, not 45 as recommended by the 17 experts. 18 It seemed massive. It seemed 19 unadvisable. From my point of view, not being in the 20 blasting community or anything, I just looked at it as 21 stuffing a trailer truckload of explosives in the ground, 22 and even though there may be a delay between the blasts, I 23 think if you blast with 45 kilograms of explosives it has a 24 small effect. 25 If you have 80 delays, it doesn't have

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1 80 times the effect, but it has more. For them to say that 2 they're going to blast once every two weeks and then find... 3 Or up to 80 separate explosions, I can't... I haven't got 4 the education to be able to evaluate it, but it doesn't seem 5 to me reasonable that one blast of 45 kilograms would be the 6 same effect on creatures in the water as 80 blasts. I may 7 be wrong. 8 And finally, in conclusion, I believe 9 right now that, in the past five years, we've been treated 10 as well by the Proponent as we can ever expect to be 11 treated. He has wanted something from us. 12 If once he gets the permit, what type of 13 treatment can local fishermen and can local people expect? 14 It may be good. I don't know. 15 But his need for a permit sort of 16 guaranteed somewhat good treatment, and I don't think we 17 received it. 18 Fishermen seem to be required to move 19 aside when they're blasting, and they seem to be being told 20 that when there's a ship coming in, we have no right to be 21 in the way. We get out of the way and, at their 22 convenience, we go back and we get on with our work. 23 This doesn't make sense to me because if they had a quarry going and I was a fisherman and I come to 24 25 the area and I set my traps and I said, "Look, I'll move out

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1 when it's convenient for me to let you blast and I'll move 2 my traps out of here and I'll not fish in the area when it's 3 convenient, you know, when it's convenient for me I'll let 4 your ship come in." 5 We were there first. We've been there 6 for 250 years. And to just been told now I have to move 7 aside, I may have to... If my predictions are right and I 8 know that if this 2,500 metre zone with buoys is correct, 80 9 percent of my traps that make my living will be within that 10 area. And with the tugs and the ships and the 11 12 work boats and the buoys and the uncertainties, I doubt very 13 much that I can make a living there any more. 14 Why are not considered as the nearest 15 receptors? When they talk about the nearest receptors, the 16 nearest people that can hear anything from that guarry, I 17 fish within 100 yards of the shore there, but they go to the houses out in Little River. 18 19 Am I not human? And I have not heard 20 yet... I've heard you say not allowed to blast within this 21 distance of a waterbird, this distance of a whale, this 22 distance of everything except me. 23 If I'm there in my boat, nobody has yet told me how far I have to vacate the area or whether they 24 25 are allowed to blast within 100 metres of me. Nobody has

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informed me of this yet. 1 2 And one last word, and I'll give it up. 3 From my point of view, and this came from my grandfather, 4 and he was a smart man. 5 He said, "You'll come to people all 6 through your life", he said, "and they're going to be a lot 7 smarter than you. No doubt." "But", he said, "a smart 8 person can do anything. A wise person knows whether he 9 should or not." 10 Thank you. 11 --- Applause 12 THE CHAIRPERSON: Mr. Stanton, you didn't 13 show your slide. Were you going to show us a slide? 14 Mr. KEMP STANTON: He couldn't bring it 15 up. Basically what I needed was the map to show where the 16 buoys were, and it would have ... 17 THE CHAIRPERSON: At some later time, if 18 you have it, maybe you could bring it up and we would 19 appreciate seeing it or, if it could be ... oh, is this it? 20 Mr. KEMP STANTON: Yeah. That is a copy. 21 Mr. BOB MORSCHES: Doctor, I made those 22 recently and I put them on a PC to verify that they would 23 work, and they did there, but on this PC they did not. THE CHAIRPERSON: Well, we have... 24 25 Mr. BOB MORSCHES: But you have the hard

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2 THE CHAIRPERSON: That's fine. 3 Mr. BOB MORSCHES: ---of that. 4 THE CHAIRPERSON: I hadn't looked at it. 5 Mr. BOB MORSCHES: And that's a 6 cartographic map there. It's just not a suggestion. 7 THE CHAIRPERSON: All right. 8 Mr. BOB MORSCHES: All those measurements 9 are accurate and his buoys are exactly where he normally 10 places them. 11 THE CHAIRPERSON: All right. Thank you 12 very much. We'll look those over later. 13 PARTNERSHIP FOR THE SUSTAINABLE DEVELOPMENT OF DIGBY NECK 14 AND ISLANDS SOCIETY - Mr. KEMP STANTON - QUESTIONS BY THE 15 PANEL: 16 THE CHAIRPERSON: Mr. Stanton, I have a couple of questions for you. 17 18 You've lived in this community all your 19 life---20 Mr. KEMP STANTON: Yes. 21 THE CHAIRPERSON: ---and you've fished 22 here all your life, all your working life. 23 Mr. KEMP STANTON: 95 percent of the 24 fishing I've done has been within five miles of Whites Cove. 25 THE CHAIRPERSON: Okay. So you're as

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1 familiar with Whites Cove as any other fisherman in this 2 environment. 3 Mr. KEMP STANTON: The only other person I know of that knows more is my father, still fishes with me 4 5 at 83, and he's fished there all his life. 6 THE CHAIRPERSON: And you said that 80 7 percent of the traps that you set are set in that general 8 area around Whites Cove. 9 Mr. KEMP STANTON: You see the outermost 10 ring on the map that you have, they would be. 80 percent of 11 them would be in that area. 12 THE CHAIRPERSON: I see. What are the 13 tidal currents like off Whites Cove? How fast are they 14 running under the extreme conditions? 15 Mr. KEMP STANTON: The most extreme 16 conditions ---17 THE CHAIRPERSON: Two knots? 18 Mr. KEMP STANTON: ---three knots. 19 THE CHAIRPERSON: Two to three. 20 Mr. KEMP STANTON: I would think I was 21 very safe in saying three knots. 22 THE CHAIRPERSON: Okay. And what about 23 the sea conditions there if you had to characterize the 24 environment in the broadest sense of the word? 25 You've sat in on all these sessions and A.S.A.P. Reporting Services

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1 you know we're discussing the weather and the ship arrival 2 and all of that. If you had to characterize what the 3 environment would be like, I mean, it's generally a prevailing wind from the west to the northwest, right, and 4 5 then you've got a fast tide. 6 In your words, how would you describe 7 it? 8 Mr. KEMP STANTON: It's changeable. We 9 have about 40 words for the different state of the sea, and 10 they're all there at one time or another. 11 You get a short swell, you get a chop, 12 you get a long swell. But at Whites Cove itself, about the 13 only rougher place as far as water goes in that area would 14 be down at the mouth of Petit Passage because of the tide 15 coming up over, especially against the wind. 16 It piles up the sea and the sea tends to 17 break there. Even when there isn't breaking sea in most of 18 the other areas, the tide piles up and the eddies created by 19 the tide going around the point pushes back against itself. 20 So it's a confused sea state, at best. 21 THE CHAIRPERSON: I know the word 22 confused. 23 Now, you get swells coming in from the 24 They come in around and they actually enter in Atlantic. 25 and you can feel them coming, can you? That's what I heard

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1 you say, was it? 2 Mr. KEMP STANTON: What comes from the 3 open Atlantic, usually you don't feel it in a small boat in 4 that area. 5 It's such a long swell that even on a 6 day when we call it greasy smooth, you look in on the shore 7 and the swell is piling up and piling up, but you get no 8 sensation of moving in your boat because it's so long. 9 THE CHAIRPERSON: That's because it's a 10 long wavelength. 11 Mr. KEMP STANTON: That's right. 12 THE CHAIRPERSON: I heard you say that 13 you participated in the CLCs. Did you participate in all of 14 them or some of them, or what percentage did you participate 15 in? 16 Mr. KEMP STANTON: I don't really know 17 how many took place. 18 THE CHAIRPERSON: Half of them, a third 19 of them? 20 Mr. KEMP STANTON: I would say I took 21 part in maybe four. If I said four, I may be lying, so I 22 think I'm safe in saying four. 23 THE CHAIRPERSON: How would you 24 characterize the process itself? How did it work? 25 You've heard us, again, we're trying to

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understand how that worked, and I think you're the first

2 person we've spoken to, aside from the Proponent, who was 3 actually in the meeting knowingly, that we know that you 4 were there. 5 How would you characterize it? 6 Mr. KEMP STANTON: It was unfriendly, the 7 atmosphere from the beginning. You would expect that. 8 But as we... There's a word in all 9 these documents that just make us unmanageable, and it's 10 "insignificant". And after about the first 30, 40 times we 11 heard that word, it became more and more confrontational. 12 THE CHAIRPERSON: How... 13 Mr. KEMP STANTON: It wasn't necessarily 14 the Proponent, maybe, because every effect that... The 15 definition of "insignificant" was anything that happened in 16 the local area, and we just took that as meaning that, well, 17 if we were in the local area, we were insignificant, too. 18 THE CHAIRPERSON: You mean like in 19 reference to people's employment or the way they lived, 20 or...? I don't understand. 21 22 Mr. KEMP STANTON: Well, nothing of any 23 historical significance ever took place at Whites Cove. 24 THE CHAIRPERSON: Oh, I see. 25 Mr. KEMP STANTON: We believe that

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PARTN. FOR THE SUSTAINABLE DVLP. OF DIGBY NECK AND ISLANDS (QUESTIONS BY THE PANEL) 1 fishermen and their lives are significant. It was just like 2 every other fishing village in Nova Scotia. Thousands of 3 others, as if, well, they're all like. They're just 4 fishermen. 5 And from being treated that way all our 6 lives by many people, especially experts, we may not have 7 given them enough leeway, but many times when we would ask 8 for an expert or ask for information, "We will get back to 9 you on that." 10 And very seldom did we seem to get the 11 information, from our point of view. 12 THE CHAIRPERSON: Was the CLC used as a 13 way of obtaining traditional knowledge? Did that kind of 14 give and take on within the CLC? 15 For example, I've just asked you 16 questions about the tides and about the swells and about the 17 sea state and about the productivity. Did that kind of 18 information get transferred in there? 19 Mr. KEMP STANTON: None of those 20 questions were ever asked of me. I can't... Or any other 21 fisherman while I was at the meetings. 22 Now, what went on while I wasn't at the 23 meetings, I can't really comment on. But it would have ... 24 Their attitude seemed to be that if they... Or our attitude 25 was if they wanted some information, if Bilcon wanted some

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1 information on that area, we aren't dangerous. 2 They could have come down on the wharf 3 and talked to a bunch of us fishermen, and they may have got 4 a little more... Like we may have stretched things a 5 little bit for them, but they could have got a fairly good 6 idea of what we thought would go on in the area. 7 We really don't believe that over a 50-8 year period you can bring ships in of that size without 9 destroying at least one of them. 10 THE CHAIRPERSON: In document, the 11 Environmental Impact Statement, there is a section that 12 deals with the physical environment and the sea and so 13 forth. 14 Is there any way of gauging, are you 15 able to gauge, what the input from traditional knowledge 16 might be into that section? Somebody contributed, 17 presumably, but do you have any way of gauging it for us? 18 Mr. KEMP STANTON: I don't see, really, 19 very much information there that's specific to the area. 20 They never went out and put a fine mesh 21 trap down there and brought it back up and said here's what 22 lives on the bottom. It's mostly regional, seems to me to 23 be mostly gathered from regional sources and kind of, well, 24 that's probably there, or maybe... 25 You know, we have different tide

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1 conditions, different water temperatures, different 2 mixtures, and if you're going to have a ship there, and all 3 this blasting, you should really know exactly what, or pretty what is there, and in what proportions, because once 4 5 you bring one of those ships in and she scours the bottom in 6 the area, and any contaminants that the copper bothers may 7 be caused. 8 There is high levels of copper in the water in that area. Not prohibitively high, but from what 9 10 I've done a lot of research since this project, and I... 11 copper tends to settle into the bottom sediment, and if 12 every week you're stirring up that sediment from the bottom, 13 you may be increasing the concentrations of copper, and from a simplistic point of view, my point of view, I use copper 14 15 paint on the bottom of the boat to kill sea life. 16 It sounds dangerous to me. Whether it 17 is or not. 18 THE CHAIRPERSON: Just a moment. Okay. 19 I think I've exhausted my questions. Dr. Grant will ask 20 you some. 21 Dr. JILL GRANT: Mr. Stanton, you 22 indicated that you and your father fished these waters off 23 Whites Cove. Are there other fishermen who fish off this 24 area, as well? 25 You indicated that you and your father A.S.A.P. Reporting Services

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1 fished these waters, and are there other fishermen who are 2 fishing these waters off Whites Cove? 3 Mr. KEMP STANTON: Yeah. Usually there's 4 three other boats that fishermen, as intensely probably as I 5 do. 6 Now, the boats are getting bigger and 7 they're going further, so probably at no time would most of 8 them have any more than 45 to 50 percent of their gear in 9 that area, and they tend to, when lobster is abundant in St. 10 Mary's Bay, they move the traps around there. When they 11 thin out there, they move them back into our area. 12 And some of them would be off to the 80, 13 90 fathom mark, and in the spring they tend to come in 30 14 fathom or closer, and the lobsters come into within two 15 fathom of the shore. So it's a fluid situation. 16 Dr. JILL GRANT: Can you give us an idea 17 of how often you would be checking your traps in those 18 areas, if you're setting traps in those waters? How 19 frequently would you be going into the waters to check them? 20 Mr. KEMP STANTON: For the first month of 21 the season, I would like to be able to do it every day, 22 weather permitting. 23 After that, the frequency goes down, and 24 maybe during January I might only get out three times, maybe 25 four, during January, because that water is so cold that the

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1 lobsters aren't moving, and it isn't worth my while. 2 It's all a product of how well the 3 lobsters are moving, how many lobsters there is, when the water gets warmer and lobsters tend to move on the shore, we 4 5 usually haul. More often in the spring, it'll get up to 6 maybe three times a week, maybe every two days, dependent on 7 how the fishings go. 8 Dr. JILL GRANT: If a ship was coming in, 9 and that delayed you from checking your traps when you 10 wanted to be checking them fairly often, what would the 11 implications of that be? What would the effect of delays 12 for you to be able to get to your traps mean for you? 13 Mr. KEMP STANTON: As far as the ship 14 coming in and going out, it's going to disturb me for a 15 short period of time, and I'll have to move out of the area. 16 But we only have two hours to two hours 17 and a half to work on our off-shore traps, and then the tide 18 push them under. So if it's during that two and a half 19 hours, I don't get those traps hauled that day. 20 But if the terminal goes in, and that 21 stuff goes in, if I was fishing there right now and they put 22 the terminal there, it would be on top of three or four of 23 my traps. I'll have to move the traps away from that, so 24 when the ship comes in eight to nine traps would be 25 physically covered by the ship and the terminal.

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1 And so if it comes in from above, if it 2 comes in from below, it's variable, but it's going to be a 3 major disturbance, and it makes me move... We have a system, we can haul traps in one place at one time of tide, 4 5 and we can haul traps in another place at another time of tide, and if when you should be there hauling traps you 6 7 can't be, then you don't get them hauled that day. 8 Dr. JILL GRANT: Thank you. 9 One of the maps provided by the 10 Proponent shows sediment, two sediment banks around an area 11 of boulders, and this is in the area that the ship may be 12 coming in over. 13 I wonder whether you think there would 14 be any effect from the ship coming over those sediment 15 Is ship turbulence likely to make the bottom turn banks. 16 up? Is that going to present a problem for fishing in that 17 area? 18 Mr. KEMP STANTON: Yes. I don't know, I 19 researched this as much as I could. In some circumstances, 20 a prop wash from a ship that's making a violent maneuver can 21 roll 10-tonne boulders over bottom. That's extreme. 22 But this area, from the EIS they seem to 23 think that sand is an unproductive habitat. We find it not 24 so in the extreme. If I put a trap overboard on bedrock, I 25 expect to come back in four days and the bait will still be

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1 in that trap. There may be some lobsters in it, but the 2 bait will still be there. 3 If I put a trap overboard on sand 4 bottom, and come back in three hours, the bait is gone. 5 Something small is there in the sand that can come out of 6 the sand, eat the bait, and when you hold up the bait bag a 7 whole lot of these little critters dump out. 8 The only way I can describe it is I've 9 heard that in Africa if you took and weighed the weight of 10 all the mammals you would come up with a weight much less 11 than if you weighed all the ants in Africa. I think there's 12 an awful lot of small stuff. 13 And a lot of this stuff on bottom is not 14 When it comes up in our gear and in our traps, it's sand. 15 crushed shell. Maybe it may be laying over sand, but 16 there's all kinds of shells, razor clams, mussel, anything 17 It's a veneer over the sand, I would say. at all. 18 Dr. JILL GRANT: In the Environmental 19 Impact Statement, it suggests that discussions have been 20 held with lobster fishermen from this study area. Are you 21 aware of discussions? 22 I know you said you did not attend a 23 meeting. Have the other fishermen in the area been 24 discussing compensation? Is there something happening 25 there?

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1 Mr. KEMP STANTON: I believe that, not 2 positive, but I believe Roger Tidd, who used to fish from 3 our village, may have talked with the Proponent. He no longer owns a lobster license, he's out of the business. 4 5 And I believe that those fishermen from 6 Little River, I can't quite think of his name now, but he 7 fished urchins, and he lobster fished, and he I think had 8 long talks with the Proponent. 9 Dr. JILL GRANT: But you have not 10 discussed compensation with the Proponent at all, yourself? 11 Mr. KEMP STANTON: It's hard for us to 12 even consider compensation, especially yet, because we're 13 hoping that it doesn't go ahead. But if the Proponent goes 14 by regulations, he does not have to compensate us for any of 15 our gear that's lost. Well, my gear especially. 16 Because in order for us to be 17 compensated by a tug or anything like that, we have to have 18 our gear marked with a radar reflector, and unless it is 19 marked by a radar reflector, it is considered that the boat 20 that interferes with it may not be able to see it. 21 So we can claim no compensation unless 22 we have a radar detector to mark our gear, and it's not 23 feasible to fish single and double traps on a line because 24 the buoy that would be needed would drag your traps away. 25 Dr. GUNTER MUECKE: Yes, you just

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1 mentioned that, and I'd just like to get a bit of context 2 here, is do you fish with single traps, or you have trawls 3 of traps? 4 Mr. KEMP STANTON: Probably 80 percent of 5 what I fish is singles. Maybe 10 percent is doubles, and 6 another 10 percent, the last 10 percent, I fish on trawls. 7 So it depends on how smooth the bottom 8 is and how far off you're going to go. A single trap lots 9 of times will just skid back and forth, and if you put more 10 on, you have better chance of holding it in one place. 11 Dr. GUNTER MUECKE: So when you put traps 12 further off shore, where it's perhaps calmer, you put them 13 on trawls, is that right? 14 Mr. KEMP STANTON: You'd put them on 15 trawls basically so the tide wouldn't be able to carry them 16 away, and that they... It isn't, nothing to do with the 17 smoothness of the surface. It's the bottom they're sitting 18 on. 19 Dr. GUNTER MUECKE: Yes. Okay. 20 Mr. KEMP STANTON: And it's, fishing with 21 my father, if I had chosen another crew, I might've put out 22 a few more trawls, but my father is getting old, he's 83 23 years old, he fishes with me every day, and I just don't 24 feel safe using that type of gear. 25 So being an independent fisherman, I can A.S.A.P. Reporting Services

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1 make that choice, and I can choose to fish where I can take 2 him with me. 3 Dr. GUNTER MUECKE: I was wondering, have 4 you ever had any experience with prop wash from large ships 5 coming into the area that you have laid your trawls? 6 Mr. KEMP STANTON: Not really. I have 7 seen a 70-foot vessel aground, and seen the absolute... 8 It's amazing the size rocks that they can roll over when 9 they try to get off the shore. 10 But far as large ships maneuvering 11 around our traps, no, we've never had any large ships in 12 that close among our traps. 13 Dr. GUNTER MUECKE: You have no direct 14 experience with that. What about other fishermen that you 15 know, would they have experience with that? 16 Mr. KEMP STANTON: I doubt it very much. 17 Large ships very, very seldom, on the shore like we have, 18 ever come... You know, they want to stay off, away from the 19 shore. 20 If the ship comes in, you must remember 21 that it is not only that ship. If conditions are poor, I 22 think probably it may be being assisted or towed by one or 23 maybe two tugs, and it will be using bow thrusters. There will be extreme amounts of 24 25 turbulence if that happens.

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1 Dr. GUNTER MUECKE: Well, I just want to 2 get an idea how much of a problem that may be. Do trawls 3 sometimes get dislodged and tangled? 4 Mr. KEMP STANTON: Yeah. On full tides, 5 I don't if you know what I'm talking about, but on full 6 tides lots of times our traps will be moved along the 7 bottom, sometimes up to half a mile, if the bottom if fairly 8 smooth, especially if there's sand. And that's a three-knot 9 tide. 10 I would suspect that behind a ship 11 heavily loaded, trying to leave under control, you may get a 12 speed of at least 15, 18, 20 knots of water movement behind 13 So it definitely will move traps a fair distance. it. 14 Dr. GUNTER MUECKE: I quess but I want to 15 get an idea of if traps tumble as a result of prop wash, 16 let's say, how much work is involved in disentangling them? 17 I've never done it, so I... 18 Mr. KEMP STANTON: Depends on how many 19 you get in a bunch. If you get 25 traps wound together, 20 you're in trouble, especially with a small boat like mine. 21 If you've got four or five traps, as 22 long as you haven't got to worry about if you... If I tried 23 to lift that bunch of traps, and I drifted down on one of 24 the bigger buoys that had a block of cement on them that I 25 couldn't lift, I would become entangled in the whole thing,

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1 and I'd lose the whole bunch.

2 And that's one of our problems, because 3 these buoys don't exactly stay still, the big ones like they 4 will have. They have to have quite a bit of slack rope or 5 slack cable in order to stay at the surface. 6 So they're going to move, say, 200 7 yards. In fog conditions, and when I'm setting the gear, 8 and it goes a little bit further and winds up around that, I 9 will not get that trap back. Maybe when they pick the buoys 10 up to do maintenance on them, which may have to happen twice a year, I might get it back then. 11 12 But once you get that buoy spread off 13 from the other one, then it tends to entangle others in the 14 close proximity. 15 Dr. GUNTER MUECKE: Maybe it's not a fair 16 question, but in terms of lobster catchers, the area that 17 you're in, how productive is it with respect to lobster 18 relative to other areas of the coast? Like I said, this may 19 be not a question you can answer, or would want to answer, 20 but would you characterize it as particularly rich or 21 average in terms of lobster catches? 22 Mr. KEMP STANTON: It's not particularly 23 rich, but when lobsters get scarce everywheres else it's a 24 low base line. When lobsters are played out in St. Mary's 25 Bay, and they aren't getting hardly anything, then bring

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(QUESTIONS BY THE PANEL) them around where we are. And they won't get a lot of lobster, but they'll get some lobster every day. I'm one of the old-fashioned people. I stick to one place, and if there's lobster there, I do good. If there isn't lobster there, I do bad. Dr. GUNTER MUECKE: I very much appreciate that. Dr. JILL GRANT: One quick question about the visibility of marine animals from a boat. You're out there as a fisherman on a regular basis. How technically feasible do you feel the strategy is that the Proponent offers for being able to identify marine mammals from a work boat? Mr. KEMP STANTON: I very much doubt you would be able to... You might be able to tell that there was a whale there, on a really clear day, at 2500 metres. Chances of identifying it by species are almost nil. On average day, without too much swell, and if you are lucky, you may, some hundred and fifty to a thousand

20 metres, maybe you might be able to identify by species, but 21 that's the larger whales. If it was a minke or if it 22 happened to be a fin whale, you would have almost no chance. 23 They tend to travel large distances underwater without 24 being seen from the surface, and they're fast. 25 THE CHAIRPERSON: Mr. Buxton? Oh.

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1 Dr. GUNTER MUECKE: Just one last 2 question, Mr. Stanton, that I sort of left out. 3 In terms of, you refer to bottom tide 4 and the habitat of lobster. When you set your traps, do you 5 have preferred locations where you, from experience, know that you're going to get a better catch relative to others, 6 7 and do you think that is related to the kind of bottom that 8 you're dealing with? 9 Mr. KEMP STANTON: It's hard to say. 10 Lobsters are unpredictable, or we'd catch them all in one 11 year. 12 Sometimes, I think they're feeding on 13 different things. When a female has eggs or is about to 14 have eqgs, especially in the spring when the water warms up, 15 she tends to move to the shore. We believe, since a lobster 16 can't make its own shell material, she may be after mussels 17 and things like that. That's the way they build new shell 18 material. They eat other shellfish. 19 When the large females move to the 20 shore, usually the smaller lobsters move off. They're 21 terrible cannibals. 22 So this year I can set gear in one place 23 and do really, really good the first day. Next year, I set 24 them in the same place and maybe not. It's probably a 25 function of what the lobster needs at that time, and what

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1 the temperature is at that time. 2 At lower temperatures, I think lobsters 3 only need to eat about once every month, or once every month 4 and a half. So they may sit right next to your trap for two 5 weeks and never go in because they don't need to eat. 6 Dr. GUNTER MUECKE: I get the impression 7 that finding lobster is an art and not a science. 8 Mr. KEMP STANTON: There's some that are better at it than others, but there's no guarantees. 9 10 THE CHAIRPERSON: Mr. Buxton? 11 PARTNERSHIP FOR THE SUSTAINABLE DEVELOPMENT OF DIGBY NECK 12 AND ISLANDS SOCIETY - Mr. KEMP STANTON - QUESTIONS BY THE 13 **PROPONENT:** 14 Mr. PAUL BUXTON: Thank you, Mr. 15 Chairman. 16 Mr. Stanton, you've talked about 17 boulders on the bottom and the fine sediment on the bottom 18 in the area of the terminal. Yesterday, we showed a map 19 showing the results of the side scan sonar that was done by 20 Canadian Seabed Research. 21 Do you have any faith in that mapping at 22 all? 23 Mr. KEMP STANTON: In general, it 24 probably does give you contours. But I, in the last two 25 years, I've had three divers overboard in that area to see A.S.A.P. Reporting Services

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2 And not being a diver myself, I trusted 3 what they said when the come up, and they said it was 4 boulders. 5 Mr. PAUL BUXTON: The side scan sonar 6 that was done, if you had thought that that was wrong, why 7 didn't you ask the question to the people that did the work 8 that were here yesterday? You were here yesterday? 9 Mr. KEMP STANTON: Yeah, but I only 10 usually get one question, and I have to use it 11 strategically. You get to ask several questions and make 12 several comments, but I'm limited. I only get one crack at 13 the can. 14 --- Applause 15 Mr. PAUL BUXTON: Talking about CLC 16 Minutes, because it leads to another... Or CLC Meetings, because it leads to another subject, you in fact attended 17 18 two meetings, one where ballast water was discussed, and one 19 where the archaeologist was present, and you noted that. 20 I'm just wondering whether you still are 21 of the opinion that there was a village at Whites Cove? 22 Mr. KEMP STANTON: Yes. I'm of that 23 opinion because my uncle was a Hersey, Clarence Hersey, and 24 he was born at Whites Cove, and he told me, and his daughter 25 told me, that his grandmother was buried at Whites Cove, and

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1 that there were crosses at Whites Cove, white crosses. 2 Now, I don't know whether there was, but 3 being my relatives, and having no special reason to lie to 4 me, I believed them when they said yes, there was a village 5 at Whites Cove. 6 Mr. PAUL BUXTON: But isn't it 7 interesting that the archaeologist found no evidence, an 8 historian who is the Chair of the History Department at 9 Acadia University found no evidence, there's no evidence in 10 the Deeds. We have identified the Hersey house, and it's 11 clearly set out in our documents. 12 But I'm puzzled as to where the evidence 13 comes from, since it doesn't exist anywhere in the records. 14 Mr. KEMP STANTON: I would say it's 15 totally traditional knowledge. 16 Mr. PAUL BUXTON: Thank you. Are you 17 aware that the archaeologist does not act under instructions 18 from Bilcon, but in fact is permitted, and all his 19 instructions are received from Nova Scotia Museum, and his 20 report goes to Nova Scotia Museum and not to Bilcon, and 21 that that report was accepted by Nova Scotia Museum? 22 Mr. KEMP STANTON: I don't know what 23 criteria the Nova Scotia Museum uses, but the report that I 24 seen in your EIS said that a certain site was a garbage 25 dump. In the 1960s, I was in that building. It was a

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1 cottage owned by Dickinson, Reverend Dickinson. He had a 2 building named after him in the university in Halifax. And 3 I burned my hand on that stove. 4 And when I told your archaeologist about 5 that, he said, "Yes, too bad". That was the only comment I 6 got. And I don't know, they may have included that in the 7 report afterwards, but if it wasn't included, then your 8 report that's in Halifax isn't accurate. 9 Mr. PAUL BUXTON: Are you still convinced 10 that there's 50,000 pounds of blasting powder in the, or 11 blasting agent in the first blast, or is that the figure 12 that is painted on the building next door to Bilcon's 13 office? 14 Mr. KEMP STANTON: Yes, that's my 15 building, and I went through the material twice, and I asked 16 three other people, including a mining engineer, Mr. Mahtab, 17 and he looked at the material and he assured me I was 18 correct. 19 So if I'm wrong, I'm wrong. But I 20 thought you put in for a blasting permit, and that's where I 21 derived the material from. I may have misinterpreted it, 22 and if I did, tell me. 23 Mr. PAUL BUXTON: Well, the math is 24 There were 56 blast holds, and there's 45 fairly simple. 25 pounds per hole. And I'm not a terribly good mathematician,

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1 but that's 2520 pounds, give or take. Certainly isn't 2 50,000. So maybe you could correct your building. 3 On a more I think important note, I want to come back to the meeting that Bilcon held with the 4 5 fishermen to get their traditional knowledge and to discuss 6 the boat coming in. 7 You recall the evening because you say 8 that you sat out in the car, but you say there were no 9 fishermen in our office. 10 Mr. KEMP STANTON: Ms. Herron come out, 11 and I asked her when the fishermen would arrive, and she 12 informed me that they would not be there; they had called 13 in, and because of the storm or because of some reason they 14 wouldn't be there. She brought me out some sandwiches. She 15 said, "If you would like to come in, you can". I said, "Is 16 there any other fishermen in there?" She told me no, so I 17 did not. 18 Mr. PAUL BUXTON: Well, would it surprise 19 you if I told you that Roger Tidd was there, and Bruce, I 20 think it's Bruce Therriault, and I can't remember the name 21 of the third fisherman. Would it surprise you if I said 22 that they were there? 23 Mr. KEMP STANTON: It would surprise me 24 if you said they were there while I was there, because I 25 went and looked in the door and I didn't see anybody.

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1 Mr. PAUL BUXTON: Well, it's very 2 interesting, because we have minutes of that meeting, as we 3 have minutes of every meeting that was held with anybody, including minutes of the CLC on our record here, and I can 4 5 assure you that there were fishermen there. 6 And in fact, a result of the meeting 7 with the fishermen that attended the meetings, that fish in 8 Whites Cove, resulted in the little arrangements that we made by increasing the diameter of the ships' turning circle 9 10 as it came into dock, which is clearly in the Environmental 11 Impact Statement. That was not made up or devised; it came 12 from information from the fishermen that we consulted that 13 fish in Whites Cove. 14 Mr. KEMP STANTON: I can't argue with 15 I have no knowledge of it. If Ms. Herron would have you. 16 told me that there were other fishermen in the premises, I 17 would have felt comfortable enough to go in, but I've met you on other occasions, and I was... I guess I may have 18 19 been on your property. I was asked to leave. I left. Ι 20 went to the Mataub Scott property. I was told to leave 21 there. 22 When I went to the middle of the 23 right-of-way to the highway, you screamed at me, and told me 24 to leave. Leave, or you would call the police. So I stood 25 in the middle of the road and told you to call the police,

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1 and I am not comfortable with being screamed at. I really 2 I do not believe I've ever screamed at you. am not. 3 Mr. PAUL BUXTON: We seem to have 4 different memory tracks, Mr. Stanton. 5 However, I have a more substantive question. Do fishermen set their traps, and the lobster 6 7 fishermen, specifically, set their traps in the fishing 8 lanes? Sorry, I'll correct that. In the shipping lanes? 9 Mr. KEMP STANTON: I believe some of them 10 It probably is true to a certain extent. There is do, yes. 11 a certain amount of gear that you can afford to risk, and 12 some people are more risk-prone than others, but if you put 13 gear in a place like the shipping lanes where you expect a 14 ship to be moving through in a straight direction is one 15 thing; if there's a possibility of a ship coming in, turning 16 possibly with the assistance of tugs, which... It's 17 another. 18 Mr. PAUL BUXTON: Do fishermen set their 19 lobster traps, lobster fishermen set their lobster traps in 20 the track which the Princess of Acadia takes on every single 21 voyage? 22 Mr. KEMP STANTON: I would suspect that 23 some of their gear is there. I have no knowledge. I don't 24 fish up that far. That's a different fishing district than 25 I fish in.

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1	Like I say, I don't know what
2	arrangement they may have with the Princess of Acadia as far
3	as compensation. I don't know what their risk, their
4	toleration for risk is. I doubt if they would be people
5	like me that fish their gear in such a concentrated area. I
6	am just a local fisherman. I do not have a big boat. I
7	don't have the capacity to travel far.
8	Mr. PAUL BUXTON: Yes, thank you. Where
9	could you fish? I understand that you're a traditional
10	fisherman in Whites Cove, and I understand that you've
11	always fished there, but where could you fish? Could you
12	give us the extent of the area which is covered by the
13	license which you hold?
14	Mr. KEMP STANTON: The license covers
15	from Gulliver's Cove down to somewhere around Shelburne.
16	With a 35-foot boat and fishing in winter months, it would
17	just be unacceptable, foolish and you know, I wouldn't risk
18	my father's life, you know, on a trip that far in the
19	winter, in a small boat like that.
20	Mr. PAUL BUXTON: I wasn't suggesting
21	that you should. I was just trying to get the extent of the
22	licensed area. So it's from Shelburne all the way around to
23	Centreville. How many miles of coast might that be?
24	Mr. KEMP STANTON: Have no idea. My
25	father, my grandfather, my great-grandfather and me have

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fished that same stretch of shore, five miles long and about 1 2 a mile, a mile and a half out, and I see no reason to leave 3 my home and my area, because you want rock. 4 --- Applause 5 Mr. PAUL BUXTON: This is a little more, 6 a little bit more complex, but bear with me if you can. 7 Given the fact that the ground fishery 8 certainly in this area is in fairly poor shape, I think you 9 could say, and certainly some difficulty with scallop 10 fishing of late, as a fisherman, do you know the ecosystem 11 sufficiently well to be sure that fishing activities over 12 the long term do not cause irreversible damage? 13 Mr. KEMP STANTON: Some types of fishing 14 activities do cause irreversible damage. It's no doubt. 15 The damage that is irreversible is miniscule. The damage 16 that is fairly long term from dragging is reversible. 17 I have been pleasantly surprised that 18 our ecosystem has withstood what we have done to it, and 19 what has been done to it, and the pollutants that's been put in it, but in my opinion, it can't withstand too awful much 20 21 more, and I have been trying through the fishery groups to 22 convince people to fish less traps, do things the correct... 23 I think if we give the ecosystem a 24 reasonable chance, and do away with most types of dragging 25 in some areas, it has a very good chance of coming back to

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1 70 to 80 of what it was within maybe two or three decades. 2 Mr. PAUL BUXTON: Yes, thank you very 3 much. I'm certainly no expert on the subject, but I do note that the Sierra Club feels that bottom-dragging is certainly 4 5 irreversible damage, and in fact, went to the Supreme Court 6 of Canada to try to have bottom-dragging stopped. 7 But I have no further questions, Mr. 8 Chair. Thank you. 9 THE CHAIRPERSON: Ms. Grant is going to 10 ask you another question. 11 Dr. JILL GRANT: Actually it's a 12 question for Mr. Buxton. 13 You raised the questions around the 14 archeology on the site. I wonder is your archeologist going 15 to be here on the socioeconomic day? 16 Mr. PAUL BUXTON: We hadn't planned on it because no comments were received, I think, by anybody on 17 18 archeological issues, and the archeological report was 19 accepted by Nova Scotia Museum three years ago. So if you 20 feel that... We could try and contact him, if you feel that 21 that's important, but the report itself has been on record 22 for a long time, and essentially, it isn't our report. 23 It's Nova Scotia Museum's report, and 24 is, you know, a product of his work to Nova Scotia Museum. 25 We paid for it, of course, but we have nothing to do with

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1 the extent or the quality of the work. That's set out by 2 Nova Scotia Museum. 3 Dr. JILL GRANT: My understanding is that 4 the report has to be presented to the Museum, but that 5 doesn't necessarily make it the Museum's report, and I certainly stand to be corrected on that, but we had asked 6 7 for an updated CV for the archeologist. The one that we have is dated from 1991, and so we had asked for some 8 9 updates so we could see what experience the archeologist has 10 in Nova Scotia archeology. 11 Are you able to provide something that 12 is more recent than 1991? 13 Mr. PAUL BUXTON: That has been provided, 14 I am told. 15 Dr. JILL GRANT: Well, respect, the one 16 that we have, the most recent entry in it is from 1991, 17 so... 18 Mr. PAUL BUXTON: We'll certainly check 19 on that. Certainly, we requested that from the archeologist 20 and it was my understanding that we had it, but we'll 21 certainly check it. 22 THE CHAIRPERSON: Okay. Any questions 23 from the audience? 24 Mr. BOB MORSCHES: Doctor, I assisted... 25 Oh, I'm sorry. I thought---

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1 THE CHAIRPERSON: No, no, that's fine. 2 Mr. BOB MORSCHES: ---you waved to me. 3 THE CHAIRPERSON: Yeah. 4 Mr. BOB MORSCHES: I assisted Mr. Stanton 5 with his presentation, and I'm sorry that this computer 6 didn't accept it. 7 I do have the displays that you have, 8 the Exhibits, which I would be glad to go ahead and give 9 them to Mr. Buxton if he so needs them, which demonstrates 10 the amount of sea life that's in that area. 11 And the important thing there is the 12 cartographic rendering that I did of the shipping lane, and 13 the buoy layout, not only for Bilcon but also of what Mr. 14 Stanton has. It's a cartographic transfer of a general map 15 that they have in their EIS that I put on a Canadian map, 16 and put the exact locations for all the buoys and the 17 shipping lane. 18 THE CHAIRPERSON: If you give that 19 information to the Secretariat, then it will go into the 20 Public Record, and everyone has access to it. 21 Mr. BOB MORSCHES: Aye, sir. 22 THE CHAIRPERSON: Thank you. Could I 23 It just makes it easier for us to see line you up again? 24 what the activities are. And Mr. Stanton, we'll do our best 25 to get more than one question for the group. I mean, we've

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1 just been pressed for time. That's the only limitation. 2 PARTNERSHIP FOR THE SUSTAINABLE DEVELOPMENT OF DIGBY NECK 3 AND ISLAND SOCIETY - Mr. KEMP STANTON - QUESTIONS FROM THE 4 PUBLIC: 5 Ms. JUDY PEACH: Yeah. I would just ask 6 Mr. Stanton what he would consider a village, because I 7 think there might be a little bit of difference between a 8 local definition, and a maybe regional definition. 9 Mr. KEMP STANTON: As far as I can find 10 out, there probably at one time would have been no more than 11 six families there. Now, in that period, I don't know how 12 many people would live in one house. Probably more than 13 nowadays, but it wasn't just one dwelling, as I understand 14 it. 15 THE CHAIRPERSON: Thank you. 16 Mr. BOB MORSCHES: Just a point of 17 clarification regarding something that Paul Buxton said; 18 that the suit, the dragging suit was an action taken by 19 Ecology Action Centre, and the Sierra Legal Defence Fund 20 Canada, and the Sierra Legal Defence Fund Canada and the 21 Sierra Club of Canada have nothing to do with each other. I 22 mean, they're not the same organization, even though we do 23 do things with them on occasion. 24 THE CHAIRPERSON: Thank you. That 25 clarifies that for us. Any other questions? Please come

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1 forward. Miss Peach, I believe, is it? 2 Ms. NORA PEACH: Nora, Nora Peach. 3 THE CHAIRPERSON: Nora Peach. Yes? 4 Ms. NORA PEACH: Yeah. A few years ago, 5 I helped with a study of the White Cove area, and did a 6 lot... Two of us worked on the deeds, and it seems to me we 7 found quite a lot of evidence that there were people settled 8 there. I don't know if it was year round, but they had 9 houses, they had property, they had animals, they had a 10 field and so on to keep animals, and they had boats and so 11 on. 12 So there's quite a lot of evidence in 13 the deeds, so that's something I could... I could bring 14 some of that for you, and maps and ... 15 THE CHAIRPERSON: If you have it, that 16 would be good. 17 Ms. NORA PEACH: But if you're not 18 interested. I don't know whether ---19 THE CHAIRPERSON: No, no. 20 Ms. NORA PEACH: ---this is still part of 21 your... 22 THE CHAIRPERSON: No, that would be 23 interesting. It would be just anoth-... 24 Ms. NORA PEACH: It makes it simpler 25 without this study, but...

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1	THE CHAIRPERSON: If you could just give
2	it to the Secretariat when you have it,
3	Ms. NORA PEACH: Okay.
4	THE CHAIRPERSON:that would be fine.
5	Ms. NORA PEACH: Right.
6	THE CHAIRPERSON: Thank you very much.
7	Others? It would appear not.
8	Okay, then, Mr. Buxton, everybody, we're
9	all Okay, this brings this session to an end. We'll see
10	you tomorrow at 9:00. Thank you all. Thank you, Mr.
11	Stanton.
12	Whereupon the matter was adjourned at 5:15 p.m. to
13	resume on Friday, June 22, 2007, at 9:00 a.m.