

NOVA SCOTIA ENVIRONMENTAL ASSESSMENT BOARD  
KELTIC PETROCHEMICAL AND LIQUEFIED NATURAL GAS FACILITY  
NOVEMBER 2006

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V O L U M E    I I

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HEARD BEFORE: Dr. Tony Blouin, Chair  
Dr. Ray Cranston, Member  
Ms. Penny Henneberry, Member

PLACE HEARD: Claymore Inn  
136 Church Street  
Antigonish, Nova Scotia

DATE HEARD: Thursday, November 23, 2006

PROPONENT: Keltic Petrochemical Inc.:  
Mr. Shawn Duncan  
Mr. Kevin Dunn  
Mr. Derek Owen  
Mr. Rob Schonk  
Mr. Glenn Longert  
Ms. Janet Blackadar

INTERVENORS: Aquaculture Association of Nova Scotia  
Antigonish Eastern Shore Tourist Association  
Ms. Delia Burge  
Greyhawke Ridge Minerals Inc.  
Nova Scotia Department of Environment and  
Labour  
Construction Association of Nova Scotia  
Ms. Kathi Ryan

RECORDER: Drake Recording Services Limited  
Per: Mark L. Aurini, Commissioner of Oaths

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THE CHAIR - OPENING REMARKS

Good morning, everybody. It's a couple of minutes before 9:00, but we'll get under way. Welcome to the continuation of the public hearings for the proposed Keltic Petrochemical project. We've been conducting hearings this week, and Monday we were in Guysborough, Tuesday in Sherbrooke, and for the remainder of the week till Saturday, we're here in Antigonish. My name is Tony Blouin. I'm the Chair of the Nova Scotia Environmental Assessment Board. On my left is Penny Henneberry, a Member of the Board, and Ray Cranston, also a Member of the Board. So we are the panel conducting these hearings. On my right is Jim Gordon, who is the Assessment Board Administrator, and Mark Rieksts, who is the Board's legal advisor. These hearings are being conducted under the provincial Environmental Assessment Legislation. There is also a federal assessment process, which applies to the Keltic project because the project will require some federal permits. Under the federal process, there are no hearings required. That's the decision of the federal government. They do not require hearings. So this is strictly a provincial hearing. The information

requirements are similar for the federal process, so there will be a federal report which will be released fairly shortly, I think, for public comment in the same way that the provincial report was released. And the information requirements are being coordinated as much as possible to avoid duplication. In each of the -- the first hearing that we've held in each of the three locations, we've had a more extensive introduction to the project. In the interests of time, we don't repeat that every subsequent day, but we will have a brief introduction from Keltic describing their project. The order of speakers is laid out in the legislation, so we'll begin with Keltic. We then have a number of intervenors who have registered to make presentations. Three different intervenors this morning. So they will do their presentations. Following each of the presentations, there will be time for questions. If anyone in the audience has a particular question for that presenter, you can ask a question at that point. At the end of the session, we will have a more open forum, so if you want to make a statement or raise an issue or voice an opinion, that's the time to do that. The purpose of environmental assessment is to look at

the impacts of a project. Our mandate as a panel is to report to the Minister. We're volunteers. We're not provincial employees, so we report directly to the Minister of Environment and Labour. And we can basically make one of three recommendations. One is that the project should not go ahead. Or we can recommend the project go ahead with certain conditions that we think are advisable, or we could recommend that it go ahead just as the proponent has described it in their assessment report without any additional conditions. In the hearings here, we don't follow formal rules of procedure in the same way that a Court of law would, but the regulations do set out certain requirements. The basic one is that everybody has an equal right to appear before us and voice their opinions. And we do expect that that would be respected. So in other words, no interruptions from the audience when someone is speaking. And maybe I should mention, just for anybody who's got a cell phone or pager, this would be a good time to turn them off, please. We are doing a complete transcript of all of the sessions, so we're being audio recorded, and we will be producing written transcripts. I understand

8 THE CHAIR - OPENING REMARKS

that probably as of noon today, I think we will have the transcripts from the Monday and Tuesday sessions available for viewing at the side table there. We also have a number of other documents there -- the Assessment Report. There have been some questions that came from the panel and from members of the public that we have submitted previously to Keltic. And they've provided written answers to those, so those are again also available for viewing there at the side. And we'd just ask you not to remove those documents. Those are for viewing. If you wish to make a statement or ask a question at some point during the proceedings, we'd ask you to use the microphones, partly so you can be heard, but also partly so that you do get your comments onto the transcript that becomes part of the public record. And if you come to the microphone, we'd ask, please, just identify yourself by name and the area in which you live. The other main requirement is anybody who's giving substantial evidence to the panel has to be sworn in. So for the Keltic group that they have here, we have already sworn them in at the beginning of the hearing, so that still applies. For intervenors who have registered with us to make a presentation, we will



need to swear them in before they do so. But for members of the audience, if you want to get up at a microphone to make a comment or ask a question, that's not required, so you don't have to be sworn in to do that. We do have a timetable that we're going to attempt to follow. We do have a certain amount of time allocated for each speaker, but that does leave a good amount of time at the end, as I said, for a more general question and answer or comment session. If you do get up at a microphone, we would just ask, give your name, and before you leave, if you could just consult with Carol at the side table there in the black sweater just to make sure that we have your name correctly and that we get the correct spelling. So that's just for people who get up to the microphones to say something. So to start off then, I'm going to ask Keltic to give a brief summary, just an outline of the project.

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MR. SHAWN DUNCAN, (Previously Sworn)

MR. W. KEVIN DUNN, (Previously Sworn)

MR. DEREK OWEN, (Previously Sworn)

MR. ROB SCHONK, (Previously Sworn)

MR. GLENN LONGERT, (Previously Sworn)

MS. JANET BLACKADAR, (Previously Sworn)

KELTIC PETROCHEMICAL INC. PANEL - PRESENTATION

MR. SHAWN DUNCAN - PRESENTER

Thank you, Mr. Chair. My name is Shawn Duncan. I'm with AMEC Earth & Environmental. We assisted the proponent in the preparation of the Environment Impact Assessment. As mentioned, I'll just give you a brief overview of the project and some of the environmental issues associated with it, as well as generally how we conduct Environmental Impact Assessments, as well as some of the additional permits and legislation that would apply to this project as well. We're here to talk about the Keltic project and what does the project consist of. There is two main components to this project. First of all, there's a liquid natural gas facility, or LNG. LNG, or liquid natural gas, would be brought to the facility and unloaded at a marine terminal, brought ashore to a re-gasification process or a facility where that LNG will be turned back into natural gas as a product. It's expected to have a billion cubic feet of capacity, which is expandable to two billion cubic feet of capacity. Associated with the LNG is the integrated petrochemical complex. This

complex will take the liquids from the natural gas, as well as the natural gas that currently exists at Sable. Those liquids will then be processed and turned into polyethylene and polypropylene products to use for the production of plastic materials. Generally the -- just an overview of the project, it's located in Goldboro. It is within the Goldboro Industrial Park adjacent to the Sable Gas facilities. It consists, as I mentioned, of the LNG component as well as the petrochemical. There are other facilities associated with these components, such as a terminal wharf or a marginal wharf for the loading and off loading of materials and product, the LNG terminal for the off loading of LNG, as well as there is a power facility that will be constructed on site to power these components and there is an impoundment and water intake structure at Meadow Lake to provide fresh water for processing. The question is why Goldboro. A number of real good reasons. Nova Scotia in general is located geographically well with regards to proximity to LNG supply basins and locations as well as access to various Canadian and U.S. markets for finished products. The existing natural gas pipeline and Sable

oil and gas infrastructure that currently exist there, those are benefits for this type of development. The natural gas -- the LNG when it's re-gasified, turned into natural gas, whatever is remaining aside from for the production of power as well as the process will be sold on market and transported to local markets here in Nova Scotia as well as New Brunswick and northeast U.S. The Goldboro Industrial Park is -- the location of the facility -- this site has been zoned heavy industrial. It was set aside by the Municipality for these types of developments when the Sable project was developed. And this area is also a corridor for future offshore resources to be brought onshore and developed. Specifically projects such as Deep Panuke have indicated this area as landfall for their pipeline and their facilities. Goldboro also offers an ice-free deep harbour for ships to come in for the offloading of LNG as well, as I mentioned, for the shipping of product to market. So what is an EIA or an Environmental Impact Assessment? It's essentially a planning tool. It's used to determine how a project would affect people, the environment, the economy. It also assists decision makers in determining what the

potential effects of the project are and what potential mitigation and permits may be required. It's also used to refine a project design. Through the environmental assessment process, if we determine that there are unacceptable environmental effects, the project can be redesigned to minimize these effects. EIAs are generally guided by regulatory processes. There are two in this -- for this project. The one we're currently involved in, as pointed out by the Chair, is the provincial environmental assessment process under the Nova Scotia Environment Act. This project is designated as a Class 2 undertaking. It was registered with the Province on January 12th, 2005, and the Province then developed a terms of reference for the project. Essentially a terms of reference is a road map that guides the proponent and their consultants in terms of the type of things that need to be evaluated and the type of assessment that needs to be conducted. This Environmental Impact Assessment is then subject to review by an Environmental Assessment Board, who are represented here today. And as part of this assessment process, there are public hearings held. And this is the -- this is currently what we're involved in. As

mentioned, there's a federal environmental assessment process, which is separate from this. It is proceeding in a parallel fashion. It falls under the Canadian Environmental Assessment Act. As mentioned, there are a couple triggers specifically with the issuance of permits from federal authorities. Specifically, Fisheries and Oceans Canada have indicated that an approval would be required for the project, and Transport Canada has also indicated that there would be an approval required for the project. Under this process, a couple of other federal agencies have indicated that they would participate as what's called expert authorities. That would be Environment Canada, Natural Resources Canada, and Health Canada. These agencies would provide review and input to the development of the EIA in the federal process. This federal EIA is called a comprehensive study report as part of that, and is currently under development and will be submitted to these federal agencies for review. So the main elements of an EIA, I've outlined them here. We'll go through them briefly. First of all, we need to assemble an appropriate level of environmental baseline information to understand the environment

where the project will be developed, and so that will assist in determining what the potential effects of the project are on the environment. We go through a process called issue scoping. Essentially this is where we go out and gather as much information about relevant environmental issues. These are identified through previous studies, through consultation with the public, with regulators, with stakeholders. And then we also determine what the effects of the environment are on the project. We have to look at things such as wind conditions in the area as well as tidal situations and waves. From the issue scoping, we have a long list of issues that have been identified. We need to narrow that down to those that are relevant to the project. These are what we called valued environmental components or VECs. The VECs are really the backbone or really the focus of any EIA. This is where all the assessment focuses and these are the issues that are specifically relevant to the project. We determine temporal and spacial boundaries for each of these VECs. In other words, we determine, for each of these components, are there specific timing considerations, are there migratory pathways, or migratory periods that

may be -- which would create a situation where those species would only occur in that area at certain times. We also look at things in reference to spacial boundaries. If we're looking at a physical interaction, say, a footprint, we would look within the boundary of that footprint plus adjacent areas, but for things such as air emissions, we would look at a much larger area, a local air shed, and take into a site that would -- or an area that would be much larger than the project site itself. We then conduct the assessment of the potential impacts or effects of the project on the environment, and then we determine are these effects, first of all, adverse or -- in other words, are they negative or are they positive effects. And then we determine what are the significance of these effects. They can be adverse, but if they are of a minor nature, then they are what we would consider non-significant effects. We then apply mitigation. Mitigation are means or measures whereby the environmental effects from the project are minimized. These can be conducted through to the design of the project or application of additional measures which would minimize these effects. And then we evaluate if



there's any what's called residual effects. After the application of mitigation, are there any effects remaining. And then we also assess the significance of these residual effects. We also conduct cumulative effects assessment where we would evaluate our project in isolation, but we'd also evaluate it in the context of other projects that are ongoing or adjacent to the project where effects from those projects could add together to create an unacceptable cumulative effect. As you probably expect, there's a number of environment issues or VECs that were identified for this project, and we don't have time to go through them all today, but I'm going to go through a couple of examples of the type of assessment we have conducted and the conclusions from those assessments. For effects on fish habitat, if we take the example of the Meadow Lake impoundment, we're raising the level of Meadow Lake by two metres to ensure there's enough process water there, and this would obviously create some significant changes to the Meadow Lake itself. We've identified that there could be both potential negative and positive effects from this change in water levels, but through our assessment, we have determined that these

effects can be managed. They can be managed through application of mitigation. They can also be managed through means of habitat compensation. And so through these mitigation measures, we've determined that these effects are acceptable or non-significant. We've talked a bit about archeological resources as well, specifically the Red Head Cemetery. As previously mentioned, this site was a burial site for African Nova Scotians. There were remains on the site prior to the project coming along. An archeological survey and work was conducted that removed these remains. When the project was evaluating this area, obviously this area still had high potential. We conducted archeological surveys in this area again. No human remains were found, but we still considered this area to be elevated high potential for archeological resources, and as a result, we have implemented mitigation where we would take certain construction procedures and measures when we're working in that area to ensure that there are limited effects on archeological resources in this location. So if we implement those mitigation and response mechanisms during the construction, we expect there to be no significant effects on archeological

resources. Terrestrial habitat -- if we look at the project footprint itself, obviously with this type of development, there will be loss of terrestrial habitat, but through our survey work again and through the study, we have evaluated the habitat that exists there and the species that use this habitat and determined neither one of these -- the habitat does not -- does not consist of what we call critical habitat for these species. So the loss of this habitat would not be significant from a regional or from a local perspective. Effects on transportation as well were evaluated. We recognize that the operations as well as the construction of the project would have increased levels of transportation with workers travelling to and from the site as well as the heavy machinery and trucks. So we evaluated the local infrastructure, the roadways for this additional transportation requirement, and we've identified that there may be major upgrades required on this road. We're currently working with Nova Scotia Transportation and Public Works to evaluate those upgrades to determine what would be required, and those upgrades would be conducted prior to construction. Two issues that

require some further evaluation after we apply mitigation. One was the socio-economic effects of the project. We have identified the socio-economic effects, or specifically the economic effects of the project as being positive and providing positive benefits. This comes from the development of the project and the associated work and jobs created by that, as well as the spin-offs from the creation of a requirement for support services and supplies, as well as the taxation for the local municipality. All these will contribute in a positive way to the economic benefits of the local area as well as the region. As such, we've determined that this would be a significant effect -- a significant positive effect from the project. Another issue that was identified was the esthetics, visual impacts. We all recognize that the site will not look like -- will not look like what it looks like today, and so there will be changes to how that site looks. But when we evaluate that against the relatively small number of receptors, the planned industrial zoning of this area -- in essence, this site was planned for this type of development, set aside by the Municipality for that -- and the advantages of the

project, we can confidently rate this significance as being a medium impact and therefore would not be a significant effect.

THE CHAIR

Shawn, I'm going to give you about a two-minute warning there.

MR. DUNCAN

Thanks. As mentioned, there are a number of regulatory permits and approvals still required for the project. As we can see under the provincial legislation, there are a number of permits still required for the construction and operation of these facilities, as well as the components like the power plant and the waste water treatment plant, as well as the construction and operation of the LNG facilities still require approval and review through the Nova Scotia Utility and Review Board. As mentioned, the federal assessment process and permitting process still needs to be undertaken, specifically the TERMPOL process, which is the technical review process for marine terminal systems. It evaluates things such as operational ship safety, shipping route safety, as well as risk assessment for potential accidents and spills. As well, the

Municipality itself has a number of -- has some by-laws in place for the land use of this site. The project would adhere to the requirements of these land-use by-laws. In conclusion, the EIA, or the Environmental Impact Assessment has determined that there will be some potential negative effects from the project, but all these potential negative effects can be managed properly. It's determined that the project will create employment, enhance personal income from the creation of jobs and through support services required for the project. The project is in compliance with the planned industrial uses of this location. In other words, this site was planned for exactly these types of facilities. This project can be constructed and operated in a safe manner, and this has been demonstrated by decades of industry practices around the world for these two industries, the LNG as well as the petrochemical. As well, this -- both of those industries are one of the most highly regulated industries in the world, so we expect that these regulations would be applied and standards will be applied for this project as well. And in addition, there is additional regulatory approvals and permits still required for the project,

so there is still a level of review and assessment required before the project proceeds. That's the brief presentation, Mr. Chair. We're ready for questions. I'll just take a minute to introduce the panel.

THE CHAIR

Sure.

MR. DUNCAN

As mentioned, my name is Shaw Duncan from AMEC Earth & Environmental. Starting from the far left, we've got Derek Owens from Maple LNG. He's here to represent the LNG proponent of the project. We got Rob Schonk next to him, and he is from Royal Haskoning. He can speak to issues associated with LNG operations. We have Janet Blackadar next to Rob, who is from AMEC Earth & Environmental. Janet was also involved with the production of the EIA. We got Glenn Longert from Stone & Webster. Glenn can speak to issues associated with the development of the project, as well as the processing design. And then we have Kevin Dunn next to Glenn, who is involved -- he's President of Petrochemical -- of Keltic Petrochemicals, and he could speak to the history of the project and how we got to where we are today.

THE CHAIR

Okay. Thank you.

MR. DUNCAN

Thank you.

THE CHAIR

So at this point, if anyone has any questions for Keltic relating to their project. I know sometimes people are hesitant to stand up, but I just want to make sure I give you every opportunity if anybody has any questions for Keltic. Okay. And if anything occurs to you, as I said, towards the end of the session, we will have kind of an open forum, so any questions at all that come up, we can certainly take those then as well. We have three intervenors who have registered to make presentations for us this morning, the first being Mr. Brian Muise, representing the Aquaculture Association of Nova Scotia. If Mr. Muise is ready, please come up and we'll get you sworn in and then you can do the presentation.

MR. MUISE

Good morning. I'd also like to introduce Mr. Bruce Hancock, who is the -- who's responsible for the operation of Country Harbour Sea Farms, the reason



we're here. And I think Bruce would like to be sworn in as well, and maybe make a brief statement.

THE CHAIR

Absolutely. Yes.

MR. MUISE

Great.

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MR. BRIAN MUISE, (Sworn)

MR. BRUCE HANCOCK, (Sworn)

MR. MUISE

Good to go?

THE CHAIR

Go ahead, please. Yes.

AQUACULTURE ASSOCIATION OF NOVA SCOTIA PANEL - PRESENTATION

MR. BRIAN MUISE - PRESENTER

As I was -- as the Chairman said, my name is Brian Muise. I'm the Executive Director of the Aquaculture Association of Nova Scotia, and I would like to thank the Board for the opportunity to speak here today. Before getting to any of the specifics of our presentation, I'd first like to take a moment just to provide a wee bit of context as to who we are and why we're here. So who we are. The Aquaculture

Association of Nova Scotia is a producers association, farmers, fish farmers, which represents about 85 percent of the fish and shellfish aquaculture operations here in Nova Scotia and greater than 90 percent of the farm-gate value of all provincial production. That would be approximately forty-one million dollars (\$41,000,000) per year. Our member companies directly employ about 950 individuals in rural Nova Scotia with an additional 500 in our supply sectors, so a total job creation of approximately 1,500 full person years of employment. Our association operates at the industry level, and it is rare that we become directly involved in working on the interests of any individual farm. It has been our policy for the past 27 years that community economic development is a process best left to that community and the specific businesses located or locating there. So we deal on the broad issue, the industry level. We don't get involved in lobbying on behalf of -- or rarely get involved on specific farm issues. So why are we here today? I stated initially that I, as a representative of the Aquaculture Association of Nova Scotia, and our member producers are not here to oppose the Keltic LNG

project. Our association members take great pride in our 30-year record of business development and job creation in the rural communities in this province. We view the project as a great economic opportunity for Guysborough Regional Municipality. Our presentation today has been motivated by a request received by our board in October of 2004 from Mr. Bruce Hancock, then the owner of Country Harbour Sea Farms Limited, for assistance in representing his company interests with respect to a proposed LNG project to be located in that area. Bruce is a long-time member and is the current treasurer of our association. He grows mussels in Country Harbour in the waters adjacent to the proposed project. It is not much more complicated than that, why we're here. Production from his farm represents about nine percent of total provincial mussel production. So to our specific concerns. With the assistance of Canadian Environmental Assessment Agency and Envirosphere Consultants Limited, our association have reviewed the environmental assessment documents for the project, which was prepared by AMEC Earth & Environment, and in July -- I'm sorry -- and we have subsequently submitted a written statement of concern

to this board in November -- on November 6th, 2006. In that submission, we focused our review on aspects of the assessment that would deal with marine and estuary environments, aquatic environments, because these are of the greatest relevance to our members who depend on clean, contaminant-free marine resources, marine waters. As detailed in that submission, we have a number of specific concerns related to the proponent's effort to date on several areas of potential negative environmental impacts of their project and on the subsequent potential negative impacts which those might have on Country Harbour Sea Farms' ability to conduct its business over both the short and long term. I'm not going to go into the details of that presentation -- that submission. There's no point at this point. In particular -- I'll just mention in passing where we have seen what we consider to be some deficiencies and we'd like to see a bit of tightening up -- in the following areas: with the Marine Environmental Assessment, the Marine Safety Assessment, the Oil Spill Analysis, in the company's recognition or the proponent's recognition of the pristine state of Country Harbour and the criticalness of this to the

profitable operation of Country Harbour Sea Farms Limited, the Invasive and Non-Native Species Assessment, the need for long-term environmental monitoring to evaluate risks of cumulative effects of activities and contaminants. And we feel they do not sufficiently recognize the benefits to the community of the current and future sustainable employment created and maintained by mussel farming in Country Harbour. So requested actions. In light of those previously stated concerns, we request of the Board and of the proponents that the following items be included in the proponent's Environmental Management Plan. A thorough pre-development scientific evaluation of current baseline contaminant levels in Country Harbour. A more thoroughly characterized evaluation of the risks of operating vessels and moving potentially harmful materials at this location by better describing the physical environment at this site. A more thorough cumulative effects assessment of development on the water quality of Country Harbour. And we think -- we feel that this could best be done by a long -- commitment to a long-term environmental monitoring program. And a more detailed marine traffic

assessment. Our big concern here are major spills, single events and/or the cumulative effects of long-term small spills. In addition to the fully sustainable positive economic contribution to the community made by the mussel farm in Country Harbour, it has also served as a long-term environmental monitoring station. For the past 20 years during which Country Harbour Sea Farms Limited has been producing mussels at this site, the waters of Country Harbour have never been subjected to a closure due to water quality issues in 20 years of operation. This is a strong testament to the pristine quality of the aquatic environment in that area. It is why Country Harbour Sea Farms was set up in that area. And it is the basis of our concern about spill events and cumulative impacts. We certainly hope that all participants in this EA process share our intent to make certain that the project results in a facility which is as clean from an environmental and human safety perspective as is feasible. If you would permit one final comment of industry self-interest, the Association would like to point out to the Board that every aquaculture lease in this Province has been won through a lengthy costly

process similar in form, if not in degree to this environmental assessment and public hearing process. To get even the smallest mussel farm approved in this province requires an effort, public hearing process, environmental assessment, evaluation by at least 13 Federal and Provincial agencies and takes anywhere from 36 to 48 months, costing the Proponent anywhere depending for a mussel farm probably in the range of about forty to fifty thousand dollars (\$40,000 to \$50,000). For a salmon farm the cost can go as high as seven hundred thousand dollars (\$700,000). For something as benign as a mussel farm, the companies have to incur some very significant upfront costs. So from a business perspective that is a cost of entry. It is an elevated cost of entry which in order to operate viably, especially something like a mussel farm that up front costs must be amortized over many, many years. Twenty-five to 30 years being an absolute minimum. It is simply the nature of the process. And the loss of even one lease, one approved lease is considered by us to be a significant loss to the long-term status and well-being of our industry and to the economy of the community in which it is located. For

this reason, our Association makes the offer that we will work with the local community and the Proponent in any way that we can to our limited resources to make -- so that we can both insure that the project and the existing mussel farm can co-exist through the life cycle of this project. And if I could -- it's certainly a very simple example compared to what we're dealing with here. This is a very precedent setting situation to us. We find one of our producers, particularly a shellfish producer, shellfish being particularly susceptible to contamination. Where we now find us in close proximity to a heavy industry zone. The closest example or analogy I can give to you is a situation we find ourselves in very commonly in this province and that is where we have a shellfish producer located somewhere in close proximity let's say to a sewage treatment, the community sewage treatment plant. The most effective tool that we have found in insuring food safety and make sure that all health concerns are met is open and ongoing communication between the person -- the individual in charge with operating that sewage treatment plant and the individual in charge with operating the shellfish farm.



That has been the most successful tool to date, just simple straightforward communication, when a closure takes place or an overflow accidentally occurs and where we are successful, one of the first persons called in those events by the operator of the sewage treatment plant is the local mussel producer. That's a recognition of the critical nature of our business and we would ask the same. IT'S a very simple tool just for one example. So I must admit in this -- in a situation such as this, we -- to use an old analogy of the mouse sleeping with the elephant and we certainly are not the elephant, we are certainly willing to take the chance and work with you folks and welcome the opportunity. So we appreciate your time and consideration on these matters. Thank you very much and I would ask -- Bruce, I think you want to say a few words.

## COUNTRY HARBOUR SEA FARM - PRESENTATION

MR. BRUCE HANCOCK - PRESENTER

Thanks Brian and good morning everyone. When I arrived this morning I didn't think I was going to be saying any words but I thought it would be a good idea just to put a face to the name. And I thank the Panel for

giving me an opportunity to say a few things. As Brian said, I am the operator of Country Harbour Sea Farms. I started that business about 15 years ago. We currently employ anywhere from 15 to 20 people, depending on the time of year. As Brian said, I did ask for the Association's help when this project was first announced in terms of representing our interests with respect to the Environmental Assessment. I have read the critique in detail that was prepared for the Association and I agree with their conclusions. At the end of the day I'd like everyone to remember that's involved in this project that it is food that we are producing in Country Harbour. Stuff that will ultimately be ending up on people's plate. I have an obligation, both morally and legally to ensure that food safety is not compromised in any way. That's through our licensing with Canadian Food Inspection Agency and our processing plant. It's through our lease and licensing process on the water, too. The quality and the integrity of our product is directly related to the water quality of our leases. In the twenty some years that that location has been used as a shellfish farm there has not been a single closure due

to water quality. And I challenge anyone here to look around the province to find other locations that have such a good track record. It's very easy for people to look at a map of Nova Scotia and think that we have this vast area that could be used for aquaculture. The reality is there is only a handful of really good quality sites for doing what we do in this province. And even though I'm a little bit biased, Country Harbour is one of the best sites in this province. So it would be a shame if in some way that that location was lost. I guess at this point all I could add is -- there's just one other thing I will say too. This is not the first time that we've gone through this process. We were also involved -- we predate the Sable project that took place in the area down there. So we were involved in the public hearing process for that project. And we express many of the same concerns that we're talking about here today. And I got to say we were very satisfied with the final report that came out by the Panel that listened to some of our concerns and we got a feeling both from the Panel recommendations and the Proponents of the project that they heard our concerns and worked around it. And at the end of the

day our business was not negatively impacted at all by the Sable project. I urge -- in that light I urge Keltic Petrochemicals and all the relevant government agencies to do their utmost to protect what I consider to be a very valuable resource in this Province. And I would echo that what Brian said that I'm available to work with whoever is necessary to ensure that our needs are met down there and that we can co-exist. Thank you.

THE CHAIR

Okay. Thank you very much. So I want to at this point ask if anyone has questions for the Association or for Country Harbour Sea Farm representative. Anyone from the audience. I'd also make that offer to Keltic if you have any questions. Yes, Ray.

AQUACULTURE ASSOCIATION OF NOVA SCOTIA - QUESTIONED

DR. CRANSTON

Ray Cranston, Environmental Assessment Board. Your concern of water quality and contaminants, I think is something that's very appropriate for us to be dealing with. And I was wondering if you have a monitoring program or data to show contaminant levels in your product? Is this routinely done and is this because of

the past activities in this area with ---

MR. HANCOCK

There's probably many levels of testing on the product. I doubt if there's many food items out there that are tested as much as shellfish. So we do have quite a bit of data in terms of mussel samples that have been taken by the Canadian Food Inspection Agency. And where they're monitoring for both bacteria levels. They do heavy metal analysis and they test for various vital toxins also. On top of that there was a considerable amount of work done by, I believe BIO a number of years ago, trying to do some baseline data collection for a project -- and I think this has predated Sable, actually, and so that data is available. And then Sable did a considerable amount of baseline data work too. Having said that, I think talking to our consultant -- I was looking at this yesterday there was a suggestion by him that perhaps there was a need for further analysis of especially the mud bottom, particularly for things like heavy metals. There's been a lot of talk about certain areas in this region being compromised because of earlier mining activities. And there's no doubt that there are locations where

that is an issue. My knowledge of that, though is that it's very localized to certain streams and rivers and where they deposit back out into the bays and harbours. And to the best of my knowledge certainly where we operate that hasn't been an issue but it might be something that's worth laying the groundwork down and doing that baseline data collection prior to any, you know, major project being undertaken.

DR. CRANSTON

Are you aware of any other products, not mussels, say in the case of lobsters or clams or -- has there been any analysis done on those and any problems ever identified to your knowledge?

MR. HANCOCK

You know what, I don't really know that much about that and I won't -- and that doesn't mean that there hasn't been those studies done. I just haven't really had a lot to do with that. DFO would probably have that information.

DR. CRANSTON

Okay, thanks.

THE CHAIR

Okay, thank you. Anything further. Any questions for

the Association or for Country Harbour Sea Farms.  
Okay. Thank you very much. Our second intervenor  
presentation this morning is Mr. Ernest Curry  
representing the Antigonish Eastern Shore Tourist  
Association. Mr. Curry.

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MR. ERNEST CURRY, (Sworn)

THE CHAIR

Okay, Mr. Curry. Go ahead please. And I should have  
mentioned, we have approximately 20 minutes for each  
presentation just for your information. Okay. Thank  
you.

ANTIGONISH EASTERN SHORE TOURIST ASSOCIATION - PRESENTATION

MR. ERNEST CURRY - PRESENTER

Good morning and thank you for this opportunity to  
address the Panel. My name is Ernie Currie. And I am  
currently past president of the Antigonish Eastern  
Shore Tourist Association. And AESTA has been  
representing the private sector of tourism in  
Antigonish, Guysborough and the Eastern portion of the  
Halifax Regional area for the past 44 years. AESTA is  
recognized by the Provincial Government as one of five  
official regional tourist associations in Nova Scotia.

AESTA is also recognized by the municipalities in this region. The -- tourism in the AESTA region generates some forty million, three hundred thousand dollars in revenues and employs 1,033 people in the tourism industry annually. AESTA and its Board of 17 Directors elected annually from the tourism industry across the region believe strongly in the tourism potential of the Keltic project in Goldboro to bring visitors to the area and to keep them here longer. I am told a similar project in New Zealand generated a large influx of visitors from around the world to that site. There is every reason to believe that the Keltic project would have a similar beneficial effect. The Keltic project coupled with the attractions of things like the Stan Rogers Festival, the Nova Scotia Lighthouse Interpretative Centre in Port Bickerton, the Canso Islands National Historic Site and the Sherbrooke Village would create sufficient critical mass to put Guysborough County at the forefront of tourism in Nova Scotia. This tourism critical mass could be promoted in the international marketplace. Now according to the World Tourism Organization, tourists are people who travel to and stay in places outside their usual



environment for not more than one consecutive year for leisure, business and other purposes, not related to the exercise of an activity remunerated from within the place visited. In, I think, the legal situation in Nova Scotia as a traveller is anyone who ventures more than 25 miles away from their home and requires accommodations. It has been AESTA's experience that the Sable Island Energy Project construction period in '97 to '99 led to a sharp increase in tourist visitation. It is expected given the scale and development that Keltic Maple project will serve as a significant draw for visitors to Nova Scotia. This is based again on what we're will be impact of the project in New Zealand. AESTA supports effective planning and zoning. This sends a clear signal to individuals and businesses in relation to the intended use of property in a community or region so that investment and lifestyle decisions can be made with a high degree of clarity in terms of their future intended use. The Municipality has zoned two locations, Goldboro Melford for industrial purposes. Historically Goldboro has been an area that developed as a result of the goldmining industry. Many of the tourists that visit

Goldboro do so to view and connect to its industrial history within the Goldboro Interpretative Centre. The displays at the Interpretative Centre focus on the gold mining and fishing history of the community. Goldboro community is now known throughout North America as a result of the Sable project. It is interesting to note that prior to the Sable project it -- Goldboro was not listed in the signage -- directional signage for the Department of Highways. So you wouldn't see the name on the Department of Highways signage. And of course, now it does. Wilderness protected lands in Guysborough County, some 23 -- 23,953 hectares or 59,187 acres including Keltic Maple development, the industrial land in the municipality of the District of Guysborough would total less than 405 hectares or 1,000 acres. So proportionately this is a very small area. Corporate support for festivals and events are an important factor for tourism. And historically corporations have contributed to the communities that they're in. And not necessarily in tourism related projects. But in the development of the community which makes the community more attractive to visits and require -- and encourages people to spend more time there. So such

events as the Stan Rogers festival, Wish I were in Sherbrooke now, Hoe down on the Hill, Goldboro Interpretative Centre, beach clean up initiatives and support for community groups and organizations are tied to corporate citizens. Private sector investment in expanded tourism projects such as DeBarres Manor, Rare Bird Club, Osprey Shores Resort are examples of tourism projects that follow corporate investments. Improved infrastructure due to large projects such as highways and any investment in transportation infrastructure will benefit all sectors of the community. The expanded tax base resulting in increased ability to develop recreational facilities such as swimming pools and tennis courts and performing arts centres, Guysborough Waterfront Development, hiking trails, etc. again expand the community and make it more attractive for visitors and/or corporate travellers. In summation it is AESTA's belief that the tourism industry in our area should strongly support and does strongly support the Keltic project at Goldboro. It has world class potential to bring more visitors to Guysborough and to keep them there longer. It will greatly assist the local economy and provide employment and benefits to a

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rural area of Nova Scotia where these benefits are desperately needed. AESTA is confident that the environmental safeguards put in place by Keltic will provide complete environmental protection. The economic benefits for all sectors brought by Keltic to the region are enormous. Hence the Tourism Industry Association strongly supports this project.

THE CHAIR

Thank you, Mr. Curry. Are there are any questions for the Tourism Association. Yes, please. Come to microphone please and -- technically it's later but that's no problem. Go ahead please. Yeah, come. Come. Just identify yourself and your area ---

MS. DELIA BURGE - COMMENT

MS. BURGE

Delia Burge. I've been involved in the tourism industry for 24 years and I meet people from all over the world and I think the last thing that they really want to come and see is a large industrial complex which is -- this is what they're trying to get away from. I hear all the time that people -- why they like this region is because of its peace and quiet and for the countryside. In my town we have a pulp mill right

opposite my tourist venue and I have never once in my 25 years had a tourist come in and say, yes, we've come to see the pulp mill because it's really interesting. I think that's -- I think we're on the wrong track thinking that people have come for tourism, that's the last thing they want to see.

THE CHAIR

Okay. Thanks for the comment. Do you want to have any response to that.

MR. CURRY

Yeah. I think I can appreciate that you know, that Nova Scotia -- you know a very strong aspect of Nova Scotia tourism is our natural resources, our natural beauty and our seacoast and these are important factors. And I do not propose to compromise those factors in any harmful way. I think that corporate citizens can be good corporate citizens and I think that this process is an example of the measures that are taken to protect those very things that you're saying that people are attracted to. I do believe that people -- you know, some people at least are interested in industrial developments and you know, something like this particular operation, I think you know, some

people would be interested in you know, how does this work and whatever. The other aspect and what I opened my talk with is that our -- we can't take the completely narrow view of tourism. Tourism as the tourist idea in our mind of the traveller who comes up from United States and he has a Winnebago or something. He travels around and that is our industry. But in fact, in Nova Scotia, that aspect of the travel industry of Nova Scotia and what sustains the industry in Nova Scotia that is a very small portion, probably less than 20 percent of the overall economy is that in our view of the tourist that comes from outside in. Our industry is very much dependent on corporate business travellers, family and friends and all these types of things are all travellers. And again, this industry would not be sustained by the narrow view of the traveller as being you know, this tourist who comes and wants to look at the trees and take a picture of a lake. So and again I'm not discounting that or saying that it is unimportant. I think it is a very important aspect of our industry and I'm not proposing that it be compromised but I am saying that our industry is much more broad than this idea of a -- the tourist with the

camera around their neck.

THE CHAIR

Okay, thank you. Any other questions for the Association. Okay. Our final registered presenter this morning is Ms. Delia Burge. So I'd ask her to come forward for her presentation.

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MS. DELIA BURGE, (Affirmed)

MS. DELIA BURGE - PRESENTATION

Firstly, I'd like to give a background on myself. Well, I have to say my name. Delia Burge. I live in Scotsburn and we have property at Drum Head which is in the area of the proposed plant. Firstly I'd like to give a background on myself and why I'm here today. I am not affiliated with any group nor am I so-called tree hugger. I am concerned resident who usually does not speak up for things I truly believe in even though there have been many times I have felt I should do so. However, I do want to add my thoughts to this hearing on the LNG and petrochemical proposal for Goldboro. As you can tell from my accent I am from away but I have lived for most of my life in this country and Nova Scotia is my home. My children and my grandchildren

all live, work and go to school in this province. We have waterfront property in Drum Head where we spent as much time as possible in both summer and winter. And we hope to spend increasingly more time in the future. Thus we have a civic address in Drum Head, a mail box and pay taxes to Guysborough County. We are therefore qualified to be concerned as to what goes on in the area. I would like to know why in all the time of planning of meetings and various aspects we were not informed of this project. We have never had a letter in the mailbox giving us information from Keltic nor from any other groups. Our only source of information has been our neighbour who lives there full-time. I wonder how he got his information. Perhaps by word of mouth. How many people still have no idea who have property in the area and what's going on. I know there is much criticism from us folks from away who are opposing this project with some thinking that we're all rich because we own a house or cottage in the country. The fact is I have four jobs, few days off, no prospects of company pensions, no RRSP's. We are self-employed, working hard to keep our place in Drum Head where we value its peacefulness and quiet lifestyle. I



believe Keltic is only giving listeners one side of this story and that is the promise of jobs. The negative implications have not been explained. We are not criticising this project because we don't think jobs and opportunities should go to Guysborough County. It is a matter of what industries do go there. There are many renewable energy industries that have less impact on the environment which could be explored. There are local investors waiting to invest in wind energy. Maybe this would be a great site for a large wind farm giving Nova Scotians the benefit of the resources. Or maybe it could be the site of processing facilities for value added renewable resources, such as wood, minerals or clean water. The environment is highly relevant right now, especially with widespread awareness of climate change, caused by pollution from big industries, especially chemical industries, and our lifestyles of extreme consumerism. We should seriously consider the necessity of this type of industry in our area. The reason it has been proposed for this location is because of the very small population, and promise of many jobs. Communities all along the Eastern Seaboard of the U.S.A. have fought against

these industries, and won. They do not want them. There's also a growing concern as to what we should be doing, as a society, to cut down on our uses of plastics and oil. Should we be establishing industry that has such a negative effect on the climate and health of our people? So, why is this project being built in Goldboro? Well, from the politicians' and Council's point of view, it will guarantee votes and popularity in a big way, so they are pushing it, no matter the cost. I can see that there is already a pipeline, running from this site to the U.S.A. The original project was on the right track of wanting to process Canadian offshore gas, and therefore benefitting Canadians, even though it was still destined for the U.S.A. But now the ownership for this new project has been sold to foreign companies, and the only Canadian content is Keltic, with Kevin Dunn as the token Nova Scotian spokesperson. With not enough Canadian gas to process, the owners are now scrambling worldwide for a steady and larger source of gas. This seems to be on shaky ground, based -- basing such a huge short term investment, to rely on gas sources coming from such unstable economies as Russia and the

Middle East. The life span of this project is estimated at 20 years, which means that a 20 year old coming home from Alberta to work here, will be out of work at age 40. With importing gas from so far away, we have to have LNG tankers coming into our coast land. I am extremely concerned about the shipping of the LNG, and the docking of these enormous vessels. Our coastline is well versed in the conditions according to fishing vessels, but not these huge tankers. They are three football fields long. There is growing worldwide concern regarding the safety of these vessels, because of the shortage of skilled labour. Many of the ships are coming from countries with extremely lax regulations, leading to infractions. Regulations are often not enforced, such as bilge water and garbage dumping. Recently, two of these super size tankers have been returned to their eastern builders because of leaks. An LNG tanker is expected into Isaac's Harbour every one to three days, along with supply vessels and tugboats. With all the dangerous shoals, rocky ledges and thick fogs for very long spells, I can't imagine how anyone can expect anything but disasters of huge magnitude. The explosion of one of these tankers has

the magnitude of 55 Hiroshima bombs. This already -- area already has a history of ships going aground on and around Goose Island. Spills, sabotage, and terrorist activities are also very real dangers, in the present world. As most of the products are destined for the U.S.A., this will be a prime target for crippling their gas supply. No amount of ground security can rule out the threat from the air. This is not the thinking of deluded people anymore, nor scare tactics. Since September the 11th, 2001, it costs eighty thousand dollars (\$80,000) per LNG tanker coming into the terminal at Everett, near Boston, for security against terrorism. Are we prepared for this? Why not put the terminal in a more accessible port, that has the experience of large freighters, and has the infrastructure and work crew to support it? If you saw the much talked about recent George Clooney movie entitled, "Siriana" about the oil industry, the last scene was of an Arab fishermen with large explosives heading full tilt into the hull of an LNG tanker. On the DVD of that same movie, George Clooney and the other actors discussed our lifestyle of over-consumption that is reliant on oil; how we have to

stand up and be accounted for our actions, that we are addicted to oil, which is running out; and to think about what sort of world we are leaving our children. They did not take their roles in this movie lightly. They wanted to put their message across. Back to local issues. The question of jobs is a very real problem, not just in Guysborough County. Businesses are closing in all areas of the provinces. Companies are down sizing. People are moving to Alberta for work. Ferries face potential closing. Both small and big business is affected. I am in the retail business, and in the summer, see many tourists. This year, I have noticed an overwhelming trend of Americans fed up with the politics and pollution in their country, and many want to move up here permanently. They are amazed that such a place in the eastern -- that such a place as the eastern shore of Nova Scotia exists. Guysborough County could accommodate and encourage these new residents, who bring with them their money and resources, without ruining the one great asset the county has: pristine wilderness, cleanliness, peace, and a beautiful landscape. Already, there are condos in Port Bickerton, and houses being built in the six

digit figures in the Port Hillford area. If we can preserve the Goldboro area, it will not be long before this wave of healthy growth will make its way up the coast, bringing permanent residents and new life into the area. Isaac's Harbour is equally as beautiful as Mahone Bay in the South Shore. However, with the proposed project in Goldboro, this potential growth will not happen. In fact, it will turn people away, and others will sell out, and move away. According to Keltic's Assessment Report, most of the workers will be living in Antigonish. But for how long will they want to commute that far? It is 50 minutes one way. And how many families will want to live in Guysborough County, which has no infrastructure, nor amenities to serve families. A project of this magnitude needs to be located in an area where it can draw from a large labour force. A lot of Maritimers are used to seasonal work, and like it that way. A company in the western end of PEI had to close, because of a lack of workers who were willing to work year round. It may be worse for the Goldboro area, where workers have to do the commute in winter, on icy roads, and several weeks of fog. I can see a potential shortage of workers, once

the initial excitement of the jobs has worn off. These big international companies do not realize the regional idiosyncrasies of the labour force. Keltic Assessment Reports and comments. Having waded through most of the Assessment Report -- which, if I wasn't so determined to be informed, I would have given up on -- it was very confusing, and repetitive and contradicting. It seems that there were many discrepancies. There are aspects that Keltic has not really decided for sure which direction it is going to take, and these must be left for later decisions. This leaves all sort of latitude for it to do what it wants, once the project is approved. Of the 112 points made from pages ES9 to ES20, analyzing the effects of environmental issues, they mark 90 of the -- 98 of these as having adverse effect, and only 14 as okay. And yet, they think it's still acceptable to go ahead with the project, and that these adverse effects are not important. Health issues are not discussed at all. There is no way that this facility can operate without emissions that are harmful to humans, animals and marine mammals. What guarantee do we have, once the plant is in place, that health concerns will be addressed and remedied? I grew up in

London smog after the war, and until polluting coal was banned from our houses, we had to breathe very poisonous gases. This is not acceptable in this day and age of better understanding of toxins, and their effect on human health. The report presumes that because there is already heavy industry in the -- with the Sable Gas Plant, their project will just fit in, and we won't even notice the difference, except that the stacks will be taller, and more visible from a larger area. This is absolutely not the case. The present plant does not rely on any moving infrastructure like boats and trucks and numerous workers, coming in and out of factories. The present gas movement is under the sea, and under land. Our shoreline is not altered, nor the landscape marred from most visible spots, although there is always the possibility of technical malfunction at the Sable Plant, or a pipeline leak that could cause an explosion:

"During construction and operation, none of the project's components is expected to cause impact on existing planned land use."

So, I suppose that's rather like none of us will notice



that the Country Store has been replaced by a Wal-mart one day, and we didn't even notice them constructing it. Isn't just growing trees, and chattering animals and birds, and permitting humans to enjoy these natural assets, good enough reason for land to be in use? What about the sewer and runoff water that is going to be piped into Isaac's Harbour? Is this just another thing that will cause no impact on the water quality in the harbour, and on the marine life there? How much will this be, with 3,000 workers, or whatever number you decide to accept, living on the camp site? As for the lighting, Charles Atherton of Lake Charles, where LNG terminals have attracted many plastic plants, says he has to drive more than 30 miles from Lake Charles to be able to view the night sky with a telescope. Is the public aware that according to LNG expert, Dr. James Fay, of the Massachusetts Institute of Technology, escaping clouds of re-gasified natural gas that encounter an ignition source can cause intense fires or explosions that would burn all people and structures within distances ranging from a half mile to one and a half miles. Can we really expect our local fire departments to deal with the magnitude of such possible

fires? Health Canada Report comments. I have read the recent Health Canada's review of Keltic's Environmental Impact Report, and I am deeply concerned about the potential health risks identified by Health Canada. Health Canada points out that Keltic is lacking in sufficient information on potential health impacts, notably, some of the following: Air quality. Need a breakdown of all emissions, chemicals released, emission rates, locations, etc. Not enough information re: on site incinerator. Inside air quality monitoring. Modelling of worst case scenarios. Malfunctions, accidents, long term power failure, dust, air quality, smells. Noise and lighting. How often, for how long, will flaring occur, which pushes the noise range from 77 to 96 decibels? Potential combined effects associated with noise from LNG terminal, the petrochemical plant, and cogeneration plant. Water resources. I am very concerned about Keltic's lack of apparent concern re: the potential increased release of mercury into the environment from the removal of soil for the dam. Mercury can also be airborne. This is particularly important, given the gold mine tellings are known to be present in the area, are often

associated with high levels of mercury, which was once used in the extraction of gold. I would therefore request that the two wells on my Drumhead property be included in your groundwater managing program, in the unfortunate event that this project is approved. Also, amongst the many items of health -- of concern to Health Canada and myself, are: sewage treatment and managing, details of the chemicals being imported, manufactured, stored and used at the facility, etc. Impacts on residential properties. The EA states that near -- nearby landowners may be affected by air emissions, noise, lights and an altered view of a large industrial development, as well as increased traffic, emissions, and noise along routes to the site. To quote Health Canada:

"Health Canada is looking for clarification as to how many residents are nearby, and may potentially be affected by construction and operation of activities. In addition, groundwater drinking water may also be of concern. It should be included on the list of issues that may affect nearby residents."

So, you can count me and my family in. Conclusion. I

can -- I am amazed that Keltic can use the word, "May" so many times, and think that gets them off the hook. What if the may becomes reality? How has this issue been dealt with? Of course we are going to be affected, in every way possible, negatively and permanently. Before they do anything, they had better make sure that all these questions are dealt with, along with all the others that have not been discussed, but that are probable negative impacts. From our house in Drumhead, we can sit and look out on the birds on Drumhead Island, across to Harbour Island, and across the headland of Isaac's Harbour, and the beautiful sunsets and starry skies, with precious silence except for wind and waves. If this project goes head, we will look out at a huge marine terminal, and a constant parade of boats and tankers with constant noise, no night sky, no stars, just lights from the terminal. And this is only a may be affected? It is a sickening feeling, and one worth fighting. It feels like this company is playing it by ear, and is out of its league in this project, which is way too big for our area. We are really not seeing the big picture, nor addressing the issues at stake. We thought we'd found a little

piece of paradise in Drumhead, and we even got friends to buy property, and others are looking for property. On behalf of myself, and my family, which includes the next generation, and for all those people who agree with me, but have not had the opportunity to bring these concerns to this hearing, I urge you to reject this proposal, like countless communities in other parts of the world. Once the destruction has begun, it cannot be reversed. This is a quote from a July, 2004 statement by the Guysborough County Regional Development Authority:

"Vision statement of Guysborough County.

Guysborough County is a place where everyone has an opportunity to have a meaningful job, but the environment is not harmed. Residents are healthy. Communities are safe, with good infrastructures and services. Guysborough County is a place for young people to live and raise families."

If this project goes ahead, would you like to buy a lovely waterfront property in Drumhead? Property includes scenic view of industrial park with modern day sculptures and torches. Marina close by with all

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facilities, including gas for your barbecue on board your yacht. Constant background noise to drown out the annoying sound of waves, wind, seagulls and silence; a pond that glows in the dark; free night lights. This may be your last chance to own waterfront in this beautiful, gated, corporate community. Thank you.

THE CHAIR

Okay. Thank you very much. Are there any questions for Ms. Burge? No?

MS. BURGE

Thank you.

THE CHAIR

Thank you very much. And we have plenty of time left for an open forum, if anyone has comments, issues, questions. Please feel free, come on forward.

OPEN FORUM

MS. GAGNON

Chantal Gagnon, Ecology Action Centre. I have two. Ms. Burge's presentation reminded me that there are -- just for the Board's knowledge, there are people living right by the industrial park, and there is actually a home -- a residence in the zoning, the industrial zoning, on Webb's Cove there. So, I just thought --

you just reminded me of that. My question -- question, comment. Regards to cumulative effects that -- or impacts that have been mentioned so far, or not mentioned in the report. I would like, I guess, to see -- I would really like to see what would be the cumulative impacts of -- with the Marginal Wharf and the LNG terminal, if you take the 200 to 400 predicted vessels that will be coming into the harbour for the LNG and petrochemical plant, over a period of the lifetime of the project. Considering that there's two harbours, and we just heard about the aquaculture going there, and what the likelihood of this becoming a heavy activity port, in the sense that, as we know, the Municipality has rezoned the area around for heavy industrial, and the wharf would potentially make it an accessible for more shipping, and more -- for other industries to develop in the area that would bring ships in order to bring in materials, or that type of stuff. So, in the 20 years, will it become -- what would be the impact, if this project encourages other development, and other uses of vessels in the area, and would that turn it a bit, sort of, like, for example, the Strait of Canso, in the sense of environmental

impacts, in the sense that there is an endangered species within that corridor, what the vessels would be. And then, if you add the dam on the harbour -- on the dam -- on Isaac's Harbour River and Meadow Lake, and then the sewage, as was mentioned, the waste treatment going into Isaac's Harbour, vessels coming in for the -- for this project, Marginal Terminal, and then any future expansion, and how that would impact both Country Harbour and Isaac's Harbour, and Stormont Bay, and the endangered species in the area. I did not see any calculation of that cumulative effect, including future development in the report. And that, I think, is something that should be looked at, if the plant is going to exist beyond -- well, if the plant is going to exist for 20 years, or more. Thanks.

THE CHAIR

Okay. Thanks. I'll ask if Keltic could make any response to that.

MR. DUNCAN

Thank you. I guess just one -- just for some information on cumulative effects. When we conduct cumulative effects for any sort of environmental impact assessment, or as part of the process, we're dealing



with looking at, I guess, additive, or impacts, that could come from different sources, not only the project, but other sources as well. And these would be projects that are currently under way. We also -- the historical projects, or activities, have been taken into account, in terms of describing the baseline information. But, as mentioned, we do look at potential projects, as well. The difficulty is, we can't be speculative about projects that may not occur -- may or may not occur, that people at this point are not planning for. So, what we're limited to, with respect to cumulative effects, is assessing those projects that are planned, or likely to occur, based on applications that are submitted, or proponents, or developers that are currently actively looking to pursue these developments. So, we've included any of those known projects, things such as the Deep Panuke project, where we'd have an online gas shore -- or gas line come ashore. We included that, because it was -- as you're aware, it's been applied for. There's development activities associated with this project. For any other future activities that we don't have knowledge on, or that are not being applied for, or

planned for, at this point, it would be pretty speculative, and there's no way, really, for us to assess what those could be, and include those in cumulative effects. And this is a standard practice that's applied with EIAs, both Federally and Provincially. That these projects that are assessed are those that are planned and likely projects for in the foreseeable future. They're not speculative, or sometime, maybe, projects in the future. So, that's how we assess those -- those -- that's our standard, when we do a cumulative affects assessment. And I believe we've assessed all the projects that are likely to occur, or are planned to be implemented in that area right now.

MS. GAGNON

Okay. I guess I'll grant that you probably can't calculate, and see what's going to happen in the future. so, I guess I'll ask the Panel to consider, in their recommendations, or in looking at all the information, that as we mentioned in the report previously, the location of the Sable Offshore Gas Plant being there is used by the proponent as one of the reasons why they've situated there. So, it is

likely to believe that if it is economically feasible for other industries of the same type to, as well, locate there, using the Keltic project as a saying, "It's already there, therefore, you know, we could go", that, at least, the Panel considers that this might turn into a big -- a bigger heavy industrial port, and how that would be affecting the species in the area, and the industry -- the aquaculture industry, and the fishermen, as we heard yesterday, and sort of consider all of that together, and look at that big picture.

Thank you.

THE CHAIR

Okay. Thank you.

MR. DUNCAN

Perhaps I could just add one more point to my response. Any future projects that do come up, that we're currently not aware of, and they require environmental assessments, they, of course, would have to assess the cumulative effects of other projects in the area, including the Keltic project. For example, my understanding of the recently submitted environmental assessment for the Deep Panuke project did include the Keltic project, as part of its cumulative effects

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assessment. So, again, any future project that does undergo these types of assessments would have to evaluate its -- that project's cumulative effects, with respect to the current or proposed projects, such as Keltic. So, I just wanted to add that as well.

THE CHAIR

Okay. Thanks. Any other questions from the audience? Comments? Yes, please?

MS. BURGE

I'm Delia Burge. Nowhere have I been able to find any information on the shipping lanes in the channels, and all that. And I wonder if there's anything written, or where I could find that.

MR. DUNCAN

I believe -- I can find the specific section reference, but in Section 2 of the EIA, we do talk about shipping routes for the project. But keeping in mind that we do -- there is still some work to be done in terms of -- in working with Federal agencies on determining what are the best shipping lanes for safety purposes, as well as other issues associated with the marine traffic. Or, as mentioned, we're going -- currently initiated what's called the TERMPOL process. This

process, we work with Transport Canada and DFO, Environment Canada, other Federal agencies, who have responsibility for these shipping lanes. And when we have additional information through our project design, we submit this information to those agencies, who review those shipping lanes, and ensure that they meet the standards and requirements for those agencies associated with ship operations and ship safety, and those procedures. So, we do have some preliminary information, but there will be additional information that will be required to be submitted as part of that process.

MS. BURGE

Yes. I did read that in the report, but I -- that, to me, didn't really say anything that was specific. And I don't know if any of you stood on the hill just after Goldboro, before Drumhead, and looked out across the open water there, on low tide, where, in the very centre there, is a huge pile of rocks. And I can't imagine how tankers can get past those rocks, or maybe -- maybe you all went there when the -- when it was high tide, and never saw them, but I mean, it's -- also, my neighbour was the lighthouse keeper for over

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30 years in Country Island, and he's amazed that this project can even begin to be thought about, because of the dangerous channel that these ships are going to be trying to come through. And it seems to me that this is really a very important issue that is sort of last on the details. I -- it seems like you've got everything worked out for the actual onshore part of the project, but the most important, I think, is how these -- how is this going to come into -- how are these enormous, as I said in my presentation, ships that are three football fields long, how they expect them to turn in that very, very small channel, with rocks sticking out and ledges. And I'm just amazed that that isn't a priority on the list, before they even consider this project.

THE CHAIR

Okay. Thank you. Maybe just supplementary, for the information of the audience, if I could just ask, the TERMPOL project -- or, sorry, the TERMPOL process that you've mentioned a couple of times, does that include any public consultation or information component, as part of that process, or ---

MR. DUNCAN

I'm not certain. I don't believe it does. I know for -- but, as part of the process and -- or part of the responsibilities of, say, Transport Canada, we're required to submit application for Navigable Waters Protection Act. That does include public consultation efforts. And my understanding is that those applications and approvals would be required for the Marginal Wharf, as well as the Marine Terminal. But I believe that as part of the TERMPOL process, as well, those agencies are required to consult with existing users -- marine users of that area, other folks that have vessels in that area, as part of that transportation safety issue, and operational procedures. So, that level of consultation, I do believe, occurs.

THE CHAIR

Okay. And do you know -- at the end of the TERMPOL process, is there a report that becomes a public document?

MR. DUNCAN

I believe it does, yes. I can follow up with that, and provide that information to the Board, in terms of what the final outcome of that process is. (Undertaking)

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THE CHAIR

Okay, thanks. Yeah, maybe if you could just confirm that.

MR. DUNCAN

Yeah.

THE CHAIR

Thank you. Okay. Any other comment or question from the audience? Maybe, if I could just interject a few questions. I have a few that are in follow up. I mentioned earlier that the Panel had submitted our own written questions to Keltic prior to the hearings, and we did receive answers to those. And those, as I said, are available for viewing in binders there, at the side. But I just wanted to follow up with a couple of them. So, let me refer you to -- then, these are questions from the Board, specifically. The first one being -- you have numbered at EAB 19, and in this we were asking "What is the content of the water management plan?" You had cited the production of a water management plan to be done, there's mention of that in the assessment document. And in response to that, you basically indicated:

"That will be developed after final design is



completed with other regulatory agencies."

But I'm just wondering if you can provide any kind of an outline, just a list of a few of the subject points that would be included in a water management plan. I'm just looking for some indication of what the content would be.

MR. DUNCAN

I'll just have Glenn Longert speak to the water management plan as it relates to the petrochemical facilities, which would require most of the processing water as well as cooling water, things of that nature.

MR. LONGERT

Typically, in the design of the -- if we're looking strictly at the design aspects of the petrochemical plant, there are several waste water streams that are generated in the process. Each one of those are dealt with individually with dedicated treatment facilities to ensure that they are handled in an appropriate manner before they are discharged. As an example, we look at storm water runoff and how it should be handled. In particular, we look at how we handle the first accumulated rain. It could be potentially contaminated due to some of the -- some not spillage

but within our secondary containment of the tankage it could contain some oil, seal oil from pumps. That would be segregated and thereafter, once we were sure that the storm water was clean, we would divert that to a holding pond. There's also cooling water, which we would be handling, and that is typically a closed-loop system, so we are not discharging that back to anywhere. We also generate processed water, typically those streams are collected and we treat them in -- appropriately ensuring that the biological oxygen demand, BOD, and COD, chemical oxygen demand, requirements of the project are met before they are discharged, as well. There is also sanitary waste generated in the facility and those again are handled in settling ponds and are treated suitably before they are discharged as per the -- as per the requirements of the certificates that we would have to adhere to.

THE CHAIR

Okay. So basically it's fair to say what you refer to as a water management plan is basically waste water. It doesn't involve management of your drinking water or processed water input.

MR. LONGERT

Well, the sewage -- the drinking water would be -- now I'm talking about, I guess, the end result of where this water is going to. We also generate different types of water depending on what the requirements are within the plant. There is a drinking water, a potable water. There is also a demineralized water stream used for steam generation. We also have processed water which is used directly within the process, as well. So there are inputs and there are outputs.

THE CHAIR

So all of those would be components of this plan.

MR. LONGERT

Oh yes.

THE CHAIR

Okay. Thank you. Just while I'm looking here, Jim wanted to make a comment, as well.

MR. GORDON

Yes, I just wanted to mention to people who are here today that the questions we are going through, many of them have come from individuals who have made comments on the EA report itself. The Chair right now is addressing the comments that he has raised as a Panel Member but in many of the submissions there were

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questions raised, and those were all forwarded to Keltic, and if there are any questions that were raised by individuals in their submission, comments on the EA report itself, you may very well find your questions answered in the two-volume response that's provided on the table over here. Thank you.

THE CHAIR

Okay. Thank you.

MR. DUNCAN

Just to supplement, I guess, the response that was given with respect to the water management plan, Glenn referred to the waste water as well as the process and the users of water on site. As part of the water management plan we would have procedures in place for the watershed or reservoir management as well with respect to the intake of water at Meadow Lake. So that would -- also the source of water would constitute a component of that water management plan, as well, and how we regulate that control structure.

MR. LONGERT

I should have also mentioned that any discharges that were deemed to be acceptable within the requirements of our Certificates of Approval would also be monitored on

a routine basis, and typically plants have automated continuous sampling systems so that they can monitor on a continuous basis what they are discharging, and they can identify when problems might be arising so that they can be proactive in any events that could occur, so that they could circumvent any type of catastrophic event.

## THE CHAIR

I'm going to refer to the question you've numbered it EAB-33, it's page 37, where we'd asked for details on the design and methodology that would be used to treat the waste water, and specifically I'm thinking here of the sanitary waste water coming from the site, so the sewage treatment in other words. You indicate that some detail is provided in the report, but I was wondering if specifically you could give me any indication of the type and level of treatment, so in other words what sort of treatment methodology would you contemplate, and to what level would it be treated? And I'm also wondering about how -- what sort of methodology you would use for disinfection prior to discharge.

MR. DUNCAN

I'll have Glenn again speak to some of the process issues but just as a preamble, you know, we would work with the provincial Department of Environment & Labour to manage these types of facilities, waste water management facilities, and apply for permits. They would obviously require the detailed design information required for this application, and discharge limits would be established working with that department. But I can -- and as a result, those detailed designs -- we currently don't have those, they are being developed on the specifics for this water treatment facility, but Glenn can probably speak to the typicals or some examples of what is being contemplated for this facility.

MR. LONGERT

Yes, as Shawn indicated, we would be treating the water streams such that they met the requirements of the permits prior to discharging back to what the permits called for. Typically, we are looking at processes whereby we are removing any free oil from the systems. We are also looking at removing dissolved hydrocarbons within the processed water, as well, by means of what we call bug ponds, which are microbial systems to

decompose the hydrocarbon into inert materials. We also look at skimming of systems to remove any beads, plastic beads that may end up in the waste water systems, that kind of treatment that we're looking at, as well as chlorination, as well, if need be.

THE CHAIR

So you would use the chlorination for disinfection.

MR. LONGERT

That's a possibility, or ozonation, that kind of thing.

THE CHAIR

Okay. Would it be fair to say -- so you mentioned you would have a bacteriological or a biological phase in the treatment, so I would take that to be roughly equivalent to secondary treatment at a minimum. Is that accurate?

MR. LONGERT

Yes. Um-hmm.

THE CHAIR

Again, I'm going to refer you to your number EAB-47 on page 51. Now, the question there was -- you're proposing to import initially a billion cubic feet per day of LNG, I think is the official number, possibly expandable to two. The question was making a

presumption that ultimately all of that LNG will be converted to natural gas phase, sent down the pipeline, apart from what you use at your site, and ultimately that's going to be combusted at some future user's location, whether it's home or industry or whatever it might be. So the basic question was "What would be the total CO2 emissions or the CO2 equivalent from combustion of that volume of natural gas?" And your indication in your answer, of course, was obviously that you don't know what the end users are going to be, but, as I say, I make the presumption that all of it ultimately will be combusted, and the basic question was what is the CO2 equivalent of that volume of natural gas.

MR. DUNCAN

I guess as we indicated, we didn't really assess this as part of the scope of the project in terms of end use of the product. This is a calculation, you know, we could perform, and if that's of interest to the Board we certainly can provide that.

THE CHAIR

Okay. It would be of interest, and I'm not asking for any great level of detail, it would just be, I think, a



basic conversion CO2 ---

MR. DUNCAN

Yeah, it's a pretty simple calculation, if you took the entire volume and combusted it what would the CO2 be.

I assume that's what you're asking.

THE CHAIR

That's right.

MR. DUNCAN

Yeah. And as I just mentioned, we didn't include this as part of our assessment, we felt it was a little bit beyond the scope of the project in terms of end use. Generally projects that we've been involved with in the past, Sable and M&NP products, we wouldn't have evaluated end use, but certainly we'll provide that to the Board.

THE CHAIR

Okay, I understand. I just haven't taken the time to do the calculation myself so ---

MR. DUNCAN

No, no worries. Nor I.

THE CHAIR

Thanks. Okay. I have a few others, I'll save those for another session. Finally then, anything further

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from the audience, questions, comments, anything you'd like to say? Yes, please?

MS. BURGE

I'm Delia Burge. I presume, I don't know, I didn't read it anywhere, that this plant is operating 24 hours a day, is that correct?

MR. DUNCAN

That would be correct, yes.

MS. BURGE

And in the -- with respect to the noise level and lighting, the maximum noise level you quoted was 61 decibels. Health Canada rates 62 decibels as enough noise that you're going to get lots of complaints. Does this mean that at night we're going to have 61 decibels of noise, possibly all night?

MR. DUNCAN

I think generally as I mentioned we still have some design details to work out, but the commitment by the proponent was to adhere to the provincial guidelines on noise, and there are nighttime noise levels associated with the provincial -- Department of Environment does provide guidance on what nighttime noise levels would be acceptable.

MS. BURGE

Yeah, but how can you adjust -- you know, if you're running a plant that's dependent on, you know, certain things running, how can you change that at night so that we can sleep?

MR. DUNCAN

Well, one of the things that would be conducted as part of the detailed design and permitting, these facilities can be modelled for noise output. The type of noise that's generated from these facilities is usually fairly well understood of what components of these facilities generate noise and which don't, and we can model -- conduct, I guess, models that would evaluate how far these noises are projected to fall. Generally noise will drop off over a distance, so we can project how far afield these noise levels will be at what level. The system design would then have to be -- have to accommodate the receptors and the noise levels that are allowed under the regulations. So noise attenuation would have to be built into the design of the plant before it's built to ensure that those noise levels aren't exceeded at those receptor locations.

MS. BURGE

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That would be the same for lighting, too? Is it possible to have lighting that doesn't go up into the sky all the time, that is shaded down specifically to the plant and especially for the marina?

MR. DUNCAN

Absolutely, and that's one of the mitigations we propose is to have shaded lighting and directionally pointed where it's required. Obviously these sites need proper lighting to be safely operated on and that's one of the mitigation measures we propose, ensure it's shaded directional lighting. Certain types of lighting, sodium vapours that are minimal impact or minimal lighting but still require -- still meet the requirements for safety, so those types of things will be implemented.

MS. BURGE

Okay. Thank you.

MR. DUNCAN

I must add, just to -- I probably wasn't fulsome in my response to Ms. Burge with respect to the navigability, but Keltic has undertaken an assessment of navigation and docking procedures, they've done some modelling. We discuss this in section 2, I don't have the exact

section reference, but we did undertake a study of simulations using the type of vessels that will be coming in and looking at the navigation channels that are -- that exist in that location as part of the modelling. So we have done navigational modelling and have determined that yes, that harbour, it is physically possible to bring these ships in and safely transport this material and dock them and manoeuvre them in that area through our simulations. As well, I believe, and I probably stand to be corrected by others that are more well versed in the audience, but the Guysborough County also commissioned a study on the port's suitability as well. A study was conducted I think by O'Halloran Campbell that looked at potential uses of that harbour, and this is one of the evaluations that they did, as well, the potential for navigation and the issues associated with those types of constraints.

## THE CHAIR

Okay. Thanks. Anything further from the audience or the panel? No? Okay. Thank you very much. We will reconvene back here at 1:30 today for an afternoon session and we have some further presenters scheduled

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at that time. Thanks very much.

--- Upon adjourning at 10:42 a.m.

--- Upon resuming at 1:30 p.m.

THE CHAIR - OPENING REMARKS

Okay. Well, welcome everybody. It's about 1:30, so I think we'll get started. We have a fairly full agenda for the afternoon, four different presenters and the proponent, so we'll get underway and try to keep to our schedule. So, I want to welcome everybody. This a continuation of the environmental assessment public hearings for the proposed Keltic Petrochemicals project. My name is Tony Blouin, I'm the chair of the Nova Scotia Environmental Assessment Board. To my left is Penny Henneberry, a member of the Board, and also Ray Cranston, a member of the Board, and the three of us are the hearing panel for these hearings. On my right is Jim Gordon, who's the administrator for the Assessment Board, and Mark Rieksts, who is our legal advisor for the Board. As a volunteer Board, we're not provincial employees, we report only to the Minister of Environment and Labour for Nova Scotia. Our role is to conduct the public hearings, listen to input we get from the public, from different government departments and from the proponents themselves. At the end of the hearings we will prepare a report for the Minister of

Environment and Labour. Our basic role is to provide recommendations on the project. We can recommend that a project not go ahead, or that it go ahead with certain conditions that we advise, or that it go ahead without conditions just as it's described in the environmental assessment document that we received. We are advisory. At the end of the day it's the minister's responsibility to make any final decisions on the project. This is the provincial process. There is also a federal environmental assessment process which is separate. Under the federal process they have decided that no public hearings will be required, so this is strictly a provincial set of hearings. There is a federal assessment report that must be done and Keltic are working on that now, as I understand it, and that will be released for public comment and review as well at some future time. The two processes are being coordinated, so in other words the information requirements are similar to try to avoid duplication. At the end of the day, though, each minister, federal and provincial, has to make a separate, independent decision on the project. So, we've been conducting hearings this week. We started in Guysborough on



Monday and Sherbrooke on Tuesday. We are recording the sessions, so that there will be a full transcript produced at the end. We do have draft forms of the Monday and Tuesday transcripts. They're available on the side table there for viewing. Please don't take them away, we only have those copies available for viewing right now, but after the hearings the full transcript will be available once it's edited and it will be a public document. It'll be available through the Department of Environment and Labour offices. We have a number of other things there. The original assessment report is available for viewing. We have also -- prior to the hearings the panel had submitted a number of questions to Keltic, as well as all of the public write-in questions that we received, those were provided to Keltic as well, and Keltic has provided answers to those which are in a couple of binders at the side again for viewing. So, these proceedings are fairly informal. We don't use the same rules of evidence as a court would. Anyone who's giving substantial testimony to the panel does have to be sworn in. We have already sworn in all of the people with Keltic who will be providing evidence or giving

responses, so that still applies for them. For the presenters who will be here today, we will need to swear each of you in as you come up to do your presentation. For members of the audience, at the appropriate times we have time for questions or comments, so if you just want to stand up at a microphone to make a comment or ask a question you don't need to be sworn in to do that. The regulations set out the order of presentation. We'll start with a brief introduction, after I'm done Keltic will provide a brief description of their project and then that'll be followed by a question period. So, if you have particular questions for Keltic about the project you'll be able to answer -- or ask them at that time. If you want to ask a question, I'd ask that you please use the microphone so that we will get you on the recording and on the transcript, and when you come up to a microphone just identify yourself by name and the area in which you live for the record. So, following the Keltic presentation and questions, then we'll have each of our registered intervenors to come up and make their presentation and we'll have time for questions if you have any for each of them as we go, and then the

final part of the session will be just an open forum. If anyone wants to get up to a microphone and make a statement, voice an opinion or ask any further questions, there'll be plenty of time to do that. If anybody does get up to a microphone, as I say, please give your name and we'd ask you before you leave if you could just check with Carol, our administrative support in the black sweater at the side there, just to ensure that we've got your name correctly and that we have the spelling of it, and that's just for the record. So, that's only if you stand up to make a statement or ask a question at the microphone, please. So, we're going to start off by -- I'll ask Keltic's representative to come up and give the short introduction to the project.

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MR. SHAWN DUNCAN, (Previously Sworn)

MR. W. KEVIN DUNN, (Previously Sworn)

MR. DEREK OWEN, (Previously Sworn)

MR. ROB SCHONK, (Previously Sworn)

MR. GLENN LONGERT, (Previously Sworn)

MS. JANET BLACKADAR, (Previously Sworn)

KELTIC PETROCHEMICALS INC. - PRESENTATION

MR. SHAWN DUNCAN - PRESENTER

Thank you, Mr. Chair. My name is Shawn Duncan, I'm from AMEC Earth and Environmental. We're assisting Keltic with the project, with the preparation of the environmental impact assessment. We just have a short presentation to go through to give an overview of the project, as well as the components of the EIA, or the environmental impact assessment, as well as some of the conclusions we found in the environmental impact assessment as well. So, just as an overview of the Keltic project itself, the project consists of two main components. There's a liquid natural gas component, or LNG. The liquid natural gas is going to be brought ashore and re-gasified, turned back into natural gas, with an output capacity of 1 billion cubic feet per day. Associated with the LNG is the integrated petrochemical complex. This complex will be taking liquids from that natural gas as well as natural gas from the Sable project, using that as feedstock for the preparation of plastic-based materials, polyethylene and polypropylene, for export to market for manufacturing end products. As an overview, in addition -- as -- I guess, to complement these facilities, there are a number of other associated

components as well. With the LNG component, the onshore facilities will include the re-gasification as mentioned, as well as storage tanks for the storage of liquid natural gas. It will have also an unloading terminal for ships to unload the LNG supply. The petrochemical facility will have its onshore facilities associated with the process but it will also have a marine terminal, or a marginal wharf. The marginal wharf will be used for the storage and transportation of materials and products. Also associated with the project is the need for process water. A freshwater water supply has been identified at Meadow Lake. There would be an impoundment -- or a dam constructed there, there would be an impoundment created which would raise the level of Meadow Lake, a pipeline would -- there'd be an intake, water intake, and a pipeline would carry that water to the processing facilities. The question has been asked, why Goldboro, why would you locate these type of facilities in this location? Nova Scotia in general is well situated with respect to supplies of natural gas on a worldwide level. Shipping times from places such as Moscow, the Middle East and Africa are days shorter than they would be to locations such as

the Northeast US or the Gulf of Mexico. In addition, we also have infrastructure in place and access to markets for the product here in Canada as well as in North America, in the United States. Another attractive feature of the site, of course, is the existing natural gas infrastructure, the Sable gas facilities that exist there. As mentioned, they will supply liquids for the processing of the petrochemicals. As well, the Maritimes and Northeast system that exists will transport natural gas to market both here in Nova Scotia for residential and industrial users as well as to New Brunswick and the Northeast US for sale. In addition to those reasons, there is an industrial park established there that was established by the municipality back when Sable was developed. This industrial park was set aside and has been zoned for heavy industrial use and it was set aside specifically to develop the type of industries that we're looking at here today, additional oil and gas infrastructure projects as well as petrochemical facilities. The corridor also -- there is also a corridor for additional offshore resources to be brought ashore at this location. For example, the Deep

Panuke project, when that project is developed and the gas brought ashore, this will be the landfall location where this gas will be brought ashore. As well, Goldboro offers an ice-free deep harbour for ships to bring LNG supply to the facility as well as for ships to take the finished product to market. So, we'll talk a little bit about what an environmental impact assessment is, or an EIA. Essentially what an EIA is is a planning tool. An EIA is used to help determine how a project would affect the people, the environment and the economy. EIAs are also used by decision-makers, regulatory agencies to determine what the effects of the project would be, what conditions it would have to meet, what additional permits would be required. It also helps the proponent refine the project design. If it's determined through the environmental assessment process that certain environmental effects are unacceptable or can't meet standards or requirements, the project can then be redesigned to make sure that those standards and those guidelines are met. EIAs are generally guided by a regulatory review process. As the chair mentioned, we're engaged here with the provincial environmental

assessment process under the Nova Scotia Environment Act. This project was designated as a Class 2 undertaking and was registered with the province on January 12, 2005. The province then developed the terms of reference, which is essentially a road map or some guidance to the proponent on what type of things should be evaluated. The EIA was then submitted for review by the Environmental Assessment Board who is represented here today, and part of the process is to conduct these public hearings as part of the public consultation effort. Also mentioned by the chair, the federal environmental assessment process is underway as well, proceeding on that as a separate process than this but it is proceeding in a parallel fashion. This process is guided by the Canadian Environmental Assessment Act. There are two specific triggers or requirements for this federal assessment process. They include approvals from two agencies. Fisheries and Oceans Canada have indicated that approval will be required for the project, and Transport Canada has also indicated that approvals would be required for the project. As part of this federal process other agencies will be reviewing and participating in the



process. These agencies would include Environment Canada, Natural Resources Canada and Health Canada. These agencies are determined or are classified as expert authorities in this process. We produced a document called a comprehensive study report, which is essentially another name for an EIA, and then as I mentioned, we're currently going through this process now in a parallel fashion. Some of the major elements of the EIA would include assembling environmental baseline information, conducting surveys, making sure we understand the kind of environment that the project is being developed in. We conduct issue scoping, which is essentially identifying all the types of environmental issues that should be considered in the evaluation. We do this through consultation with the public, stakeholders, with government agencies, with First Nations. We look at the effects of the environment on the project, issues such as wind, waves, currents, how they can affect a project and what kind of project design considerations need to be taken into account. We then identify what are called valued environmental components, or VECs, and VECs are really the focus of any EIA. These are the environmental

components that are particularly relevant to the assessment itself. These valued environmental components then are assigned temporal and spatial boundaries. Temporal boundaries would include things such as migratory periods, when certain species occur in the area and when they don't. Spatial boundaries would include differences, including exact locations for effects. For example, if you're having -- if you're impacting a certain area, we would look at the specific footprint of that area, but if you're having emissions or air quality emissions that you want to evaluate, you would obviously look at a much larger area than you would the physical footprint of the plant. You'd have to look at a regional airshed perspective. We would also -- then we would assess the potential effects of the project on these components, and then we would determine level of significance. We would determine is there an adverse effect of the project, in other words is there a negative effect, or is there a positive effect, and then we determine the level of significance, how significant is this effect. Based on that level of significance, we would apply mitigation to the project. Mitigation is essentially a

means of reducing or minimizing these environmental effects. They can be done through design changes or application of specific environmental protection measures. We would then determine if there is any residual effect, essentially is there any remaining effect after the application of mitigation, and again we would look at that in reference to guidance on significance, how significant is this remaining residual effect. We would also look at cumulative effects. These are effects that could be compounded by other adjacent projects. For example, if you have a project that -- your project is generating dust but it's minimal levels of dust but there's an adjacent construction project that is also creating dust situations, the addition of those two dust sources could create an unacceptable air quality condition. So, in a brief presentation we don't have time to go through all the environmental components that we assessed in the EIA, but I'd like to touch on a couple of them to give you an idea of the kind of evaluation we've done and the kind of conclusions that were reached by the environmental assessment. If we look at the effects on fish habitat, one of the features that

we evaluated was the potential effect of this Meadow Lake impoundment on fish habitat. We recognized that there would -- with the raising of the water levels, there would be impacts to fish habitat but we recognized that there may be positive as well as negative effects. Through our evaluation we determined that application of mitigation as well as compensation measures for any loss of fish habitat that would be applied -- through these measures we determined that there would not be a significant effect on fish habitat and that fish populations both locally and regionally would not be impacted. If we look at another issue such as archaeological resources, Red Head cemetery, for example, that area we understood had a historical significance with respect to African-Nova Scotian burial sites. Before we arrived on the site these burial sites were -- through another archaeological process were removed and placed in proper -- a burial site in the local Baptist cemetery, but we recognized that that site still had some significance. We conducted additional archaeological survey work, did not find any human remains, but still the site would be considered a high level of significance for an

archaeological discovery, so we would take proper measures during construction, during any ground-breaking activities to ensure that any cultural or archaeological resources that are uncovered are treated appropriately. Effects on terrestrial habitat. If we were to look at the footprint of the site itself, obviously there will be a removal of terrestrial habitat. Through our evaluation that we conducted as well as the field surveys, we determined -- we were able to determine what species occupied that area and utilized that area, what habitat existed, and we were able to determine that this site did not represent what we would consider critical habitat or limited habitat in the area. Lots of this habitat is available for the species that do exist. So, we would consider that with proper mitigation and construction practices and operation procedures there should not be a significant effect on terrestrial habitat from the project. Effects on transportation. This was identified also as well as a potential effect from the project both from the construction activities, the traffic associated with that, as well as the operations of the facilities. We did recognize that the existing infrastructure, in

order for it to support the project, may require some additional upgrades, recognizing that additional traffic impact studies would have to be conducted, and we've been in discussion with Nova Scotia Transportation and Public Works to identify what those issues are and determine what kind of upgrades would be required to support the project. Two potential effects, residual effects that determined -- or required additional evaluation with respect to significance. Under socioeconomic effects it was determined that there was a large economic benefit from the project, a positive effect. Generally this results from the number of jobs that are created, both short-term for construction as well as long-term operational jobs, and the incomes generated by these positions, as well as the support services that are required, the spin-offs associated with the project, as well local taxation for the municipality would be significant. All of these things added together resulted in a very significant positive effect on the economics of the local community as well as the region, and we considered this a significant effect. Under aesthetics we evaluated -- one issue that came up, of course, was

the visual characteristics of the site. Without a doubt the site will not look how it currently looks. We would have evaluated that and determined that if we evaluate this against the number -- the low number of receptors for this type of effect, as well as the fact that the site is actually zoned for this type of development, that the municipality is planning to build this type of industrial -- some type of industrial facility there, as well as the advantages of the project overall, primarily economic, we determined that this residual effect would not be a significant effect. There would be a remaining effect for sure but we would not consider it a significant effect.

THE CHAIR

Excuse me, Shawn, I'm just going to give you about a two-minute warning.

MR. DUNCAN

Thank you. In addition, there are a number of approvals still required for the project. Provincial regulations require us to submit an application for a number of industrial approvals for the construction and operation of these facilities. During the detail design a lot of this information will be provided to

the appropriate regulatory agencies in application of these permits before they can proceed. Also, under the federal process the proponent has initiated a process called the TERMPOL process. This stands for Technical Review Process of Marine Terminal Systems. It evaluates operational ship safety, shipping route safety. We conduct a quantitative risk assessment associated with the operation of the facilities. This process is coordinated by Transport Canada and participated in by Fisheries and Oceans Canada and Environment Canada as well. As well, there are municipal bylaws that would govern the operation of the facility. As well the proponent, again, would be required to adhere to these municipal bylaws. So, in conclusion on the environmental effects assessment that was conducted -- the environmental impact assessment that was conducted, it was determined that all potential negative effects from the project can be successfully managed and mitigated. The project itself will create employment opportunities and through those employment opportunities and local spin-offs these would enhance personal incomes in the area, would result in a positive effect from the project. The



project is in compliance with the planned industrial uses of this location, the planning process that was initiated by the municipality. This project -- it has been determined it can be constructed and operated in a safe manner and does have the history associated with these industries to demonstrate that. And, in fact, both of these industries, the petrochemical industry and the LNG industry, are one of the most highly-regulated industries in the world. There's a lot of regulations that apply and standards. As well, as mentioned, there are a number of additional regulatory permits and approvals that are still required for the project to proceed and when we get to the point of detail design these details will be submitted to those agencies for review and approval. That's the end of the presentation, and we're available for questions.

THE CHAIR

Okay. Thank you. Yes, we do have some time for questions. If anybody has a question that they'd like to ask of Keltic? Yes, please, come forward to the microphone. And I just want to point out at this time it would be just for questions. If you wanted to make a statement or raise an issue, there's time for that

later. But for questions, please.

KELTIC PETROCHEMICALS INC. - QUESTIONED

MR. LOCKERBY

Mr. Chairman, my name is Wayne Lockerby, I reside in East River Point in Lunenburg County. I have two or three questions, time permitting.

THE CHAIR

Yes. Okay.

MR. LOCKERBY

My first question is really one with two parts. And firstly I would like to know -- I would like to be advised of the name of the individual or individuals who authored those sections of Keltic's EA report dealing with mineral exploration licenses. And in that regard I refer to Figure No. 8.13-5, Section 9.1.1, and the tables designated as 11.1-1 and ES-1 as found in Keltic's EA report dated July 2006. Secondly, the second part of that question, I would like to know that person's professional qualifications and what specific experience and expertise does that person have in the exploration for and the mining of gold in Nova Scotia, and particularly in the Goldboro area, and what expertise and experience do they have in the appraisal

of gold exploration properties in Nova Scotia.

THE CHAIR

Okay. Thank you. I'm going to ask Keltic what they can provide on that.

MR. DUNCAN

Certainly there were a number of people involved with the production of the report. With respect to the specific sections and the information provided, we can certainly get back to the Board and the panel and provide them with those details. It would take us some time just to pull together who those people are and what their qualifications are, and we're happy to do that, absolutely.

THE CHAIR

Okay.

MR. DUNCAN

Sorry, we could provide that in an undertaking to the Board. (Undertaking)

THE CHAIR

Okay. So, we will record that the Board -- Mr. Gordon will receive that, and I guess we'll make arrangements to transmit whatever information we get back to you. We can do that.

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Mr. Lockerby

Okay. Fine. Thank you.

The Chair

Okay.

Mr. Lockerby

As a follow-up question to that, at Section 9.1.1 the EA report states, and I quote:

"The potential value of those resources or the future impact of not extracting minerals from those lands is uncertain."

While at Tables 11.1-1 and ES-1, with regard to the potential for mineral extraction being removed by the project and its components, under the heading "Significant Residual Effects" it is stated the effect of this is minimal. And I'm wondering, Mr. Chairman, if Keltic could explain to us how it determined that the residual effects of lands taken up by the project and its components being removed from the potential for mineral extraction to be minimal while clearly stating at Section 9.1.1 that the potential value of these resources or the future impact of not extracting minerals from these lands are uncertain.

The Chair

Okay. Again, I'll ask Keltic to respond to that, please.

MR. DUNCAN

Just give me a minute to pull up the specific reference in the EIA.

THE CHAIR

Okay.

MR. DUNCAN

The reference in Section 9.1.1 is with respect to the construction phase of the project, potential effects. The text that says here -- as it reads exactly, as the lands -- as Mr. Lockerby indicated:

"Lands taken up by the project and its components will remove the potential for mineral extraction, but the potential value of these resources or the future impact of not extracting minerals from these lands is uncertain as no extensive exploration has been taking place on the site, nor has the area been actively mined for a number of years."

The intent of that statement is that there is no -- currently no mineral extraction from the site, so the

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value of those resources at this time is unknown as the site has been undeveloped.

Mr. Lockerby

Mr. Chairman, my question really was, if this is unknown how can it be stated that the effect is minimal?

The Chair

Okay.

Mr. Duncan

Again, the effect would be on the resource itself, the removal and extraction of that resource. As there has been no development with regards to the exploitation and extraction of the mineral resource, we determined that there is no -- there is minimal effect on that extraction, the value of that extraction, as there has been no development in that regard.

Mr. Lockerby

Thank you, Mr. Chairman. My third question at this time is, I observed throughout Keltic's EA report that they stress they have consulted with all the stakeholders. I am wondering if Keltic could tell us the names of the mineral exploration license-holders who were definitely stakeholders that they consulted

with, when those consultations took place and the nature of the consultations. As well, I would be interested in knowing which mineral exploration and mining industry organizations in Nova Scotia Keltic consulted with, when those consultations took place and the nature of the consultations.

THE CHAIR

I'm going to ask Keltic to respond to that one, too.

MR. DUNCAN

Just looking through the responses to the questions that Mr. Lockerby submitted earlier, I believe he asked a similar question with regards -- if I'm understanding the question correctly, about the distribution or the location of exploration licenses as they occur with respect to the project. And I believe we did respond to that in terms of a number of -- it's quite a lengthy response with respect to the location and the understanding of those licenses as they're currently held or how they're -- even those that were historically held. So, I believe that information is available in a written response.

THE CHAIR

I think it was specifically, though, as to which of

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them may have been consulted.

MR. DUNCAN

And with respect to consultation on the specific ---

MR. LOCKERBY

I'm sorry, Mr. Chair, I didn't get the last statement the gentleman made.

THE CHAIR

Okay. I'll just ask him ---

MR. LOCKERBY

You believe they're available where?

THE CHAIR

Could you repeat that, please.

MR. DUNCAN

Sorry. As part of the process here, I believe there were written questions submitted by yourself to the Board, the Board then asked us to respond and we have provided a written response to those. I'm not sure if you have seen that written response, but it may answer some of the -- part of the question that you asked with respect to the license-holders.

THE CHAIR

And I'll just point out those written responses are available. They're in binders at the side there.



MR. LOCKERBY

No, I wasn't aware of that. But do those written responses identify what my question is here, which mineral license-holders you consulted with and when those consultations took place and which industry organizations that represent the mining industry and exploration industry you consulted with?

MR. DUNCAN

Well, we would have consulted certainly with the owner of the property and the activities that are undertaken on that property and we understand that some exploration licenses are -- have been -- do occur in the project area that are subject to the permission and conditions of the landowner itself. We also consulted with the Department of Natural Resources who administers these licenses and this resource. I also understand -- I believe there was a meeting that was held also with either yourself in -- with Keltic -- I'll have to find the exact date of that meeting as well. I don't have that in front of me, but we can provide the date of that as well.

MR. LOCKERBY

Thank you, Mr. Chairman. Those are my questions for

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now.

The Chair

Okay. Thank you. Anyone else at this time with any questions for Keltic?

--- (No response)

The Chair

No questions? Okay. That being the case, we're going to start with the presentations by the intervenors. We've set aside about 20 minutes for each presentation and we will have about 10 minutes for questions following each one. So, our first presenter representing Greyhawke Ridge Minerals is Mr. Lockerby. So, I'd just ask him to come back up and we will get him sworn in.

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MR. WAYNE LOCKERBY, (Sworn)

GREYHAWKE RIDGE MINERALS INC. - PRESENTATION

MR. LOCKERBY

Mr. Chairman, Members of the Panel, ladies and gentlemen, my name is Wayne Lockerby. I am the President and sole Director of a mineral exploration company, the name of which is Greyhawke Ridge Minerals Inc. Greyhawke is a small family-owned mineral

exploration company whose present only asset is its interest in 45 mineral exploration claims held under one mineral exploration license in what we refer to as the Isaac's Harbour, Lower Seal Harbour area, which is variously referred to in the reports, I guess, as being Goldboro. I will briefly describe Greyhawke's relationship with another company called Heartland Resources. This exploration license was -- and the interests in it were previously held by Heartland and they were assigned effective April 3rd, 2006, to Greyhawke Ridge Minerals Inc. as were all of Heartland's obligations relative to that license. So in my presentation, I'll be referring to Heartland and I'll be referring to Greyhawke, and in fact, there were other associated companies before that which were involved. What I propose this afternoon, Mr. Chairman, is to quickly take the panel through some of the past, present and future Keltic events as they affect Greyhawke and previously affected Heartland, as referenced in what I refer to as a Compendium of Documents re: Hearing - Keltic Petrochemicals Inc. Maple LNG Project. And that is a document I filed. And I talked to Mr. Gordon's office a couple of days

ago and they assured me that each of the Panel Members has a copy ---

THE CHAIR

We do.

MR. LOCKERBY

--- would have a copy of that here.

THE CHAIR

Yes. That's right.

MR. LOCKERBY

Because I'll be referring to it. By way of a brief overview before I go through that compendium, these 45 claims are Crown-granted mineral claims. They have been held by Greyhawke and Heartland and associated companies for more than 26 years. Based on exploration to date, drill-indicated reserves exist on a small portion of the property of 50,000 ounces of gold. To put that into perspective, at today's price of gold at approximately seven hundred and eight dollars (\$708) per ounce Canadian, that's a gross in situ gold value of thirty-five million, nine hundred thousand, four hundred and twenty-seven dollars (\$35,900,427). Three different independent geological and mining engineering consulting firms have reviewed all of the exploration

data, the diamond drilling results, and have recommended further work be carried out on the property, that it is a property of merit. Four different independent firms of geological and mining consultants have appraised the fair market value of Greyhawke exploration license interests as being on an average -- if you average the reports, eight hundred and forty-six thousand, two hundred and fifty-six dollars (\$846,256). I would point out that three of these appraisals were based on a valuation date when gold was two hundred and eighty-five dollars (\$285) an ounce U.S., and today gold is in the area of six hundred and fifty dollars (\$650) U.S. The fair market value today, if those appraisals were carried out, would be much higher than eight hundred and forty-six thousand, two hundred and fifty-six dollars (\$846,256). As stated in Greyhawke's November 10th letter to the Department of Environment, Greyhawke believes that among other things, the legislation relating to those who seek to establish industrial infrastructure on lands long used by others which is not compatible with former land use is intended to assure that at the end of the day, long-established stakeholders come out

whole, i.e., that they suffer no loss as a result of the project. The proponent states in its Environmental Assessment Report, and I quote:

"The lands taken up by the project and its components will remove the potential for mineral extraction from those areas."

It is, I believe, very clear that the proponent recognizes that its project is damaging to those holding mineral rights respecting the lands. What I would like to do now, Mr. Chairman, is sequentially go through the documents as quickly as I can in the compendium. At Tab 1 is a copy of the license held by Heartland. The rights, as I said, are now held by Greyhawke. You will note that this license comprises 45 claims. It is license No. 05867. Down below, you will note it states, "Formerly exploration license No. 04094." And at that time, which according to the bottom was January 4th, 2005, this license was in its 25th year of issue. At Tab 2 of the compendium I provided, I have summarized the monies which have been expended to date by Greyhawke, Heartland and associated companies before them on exploring and maintaining these claims. You will note that that totals eight

hundred and seventy-four thousand, three hundred and ninety dollars (\$874,390). Now that is followed by a letter from Department of Natural Resources, which was back in 1999, confirming that at that time, eight hundred and twenty-four thousand, one sixty-two (\$824,162) had been expended, and I have added to that figure in this first sheet under that tab the expenses since that date of fifty thousand, two hundred and twenty-eight dollars (\$50,228), which brings it up to eight seventy-four thousand plus. As I mentioned, independent consultants have reviewed the results and recommended further exploration, and at Tab 3, there is an excerpt of a report from a consulting firm called Mine Tech International Limited, and you will note at page 26, at the top of page 26, and again at paragraph 810, or Section 810 of page 27, that these firms have recommended further exploration be carried out on the property. At Tab 4, again it's an excerpt from the Mine Tech report, and that is a property valuation, a reference for license No. 04094, which is the predecessor of this existing license. And you will note at page 3, or the Roman numerals (iii), under that tab that Mine Tech determined the fair market value of

that license to be one million, ten thousand, seven hundred dollars (\$1,010,700), and that was at January, 1998, when gold was about, you know, less than -- less than half or perhaps a third of what it is today in price. I might turn back again to Tab 3 under the heading on page 26 under Section 8.9. It refers to a valuation carried out A.C.A. Howe International. And you will notice there at the bottom of page 26 and at page 27, that A.C.A. Howe valued the property at that time at one million, five hundred and thirty-two thousand dollars (\$1,532,000). Turning to Tab 5, it's an excerpt from a valuation done by Mercator Geological Services Limited, and you will note on page (ii) under that tab, that Mercator put the fair market value of the license at between -- at the range -- what they refer to it range -- between four hundred and thirteen thousand, eight fifty-nine (\$413,859) and six hundred and twenty thousand, seven eighty-nine (\$620,789). Again, that was at early January, '98, when the price of gold was a portion of what it is today. And at Tab 6 is another -- the fourth valuation that's been done. This one was done by a company out of Toronto called Watts, Griffiths and McOuat Limited. We don't agree



with the figures. They're way out of line with the other three independent appraisers, however, I have shown them here. And they determined a range of three hundred thousand to three hundred and fifty thousand dollars (\$300,000 - \$350,000). So when you average those figures, you come up with the figure that I mentioned of eight hundred -- eight hundred and forty-six thousand, two fifty-six (\$846,256) was the average of which most of those components were when the price of gold was much lower than it is today. Under Tab 7 is excerpts from the terms of reference which were set down and provided to Keltic by the Nova Scotia Environment and Labour Department. And I would refer the panel to Section 8.2, wherein Keltic were required to describe the patterns of current and planned land use. And I stress planned land use. Also, at paragraph 8.2, they were to provide details of areas under mineral exploration licenses. Now, to the best of my knowledge, in reviewing the report, the only references that I see in it to mineral exploration or details of mineral exploration licenses is a table which is shown under Tab 8, that being described as Figure No. 8-13-5. That shows the physical location of

mineral exploration licenses and the owners' names. The licenses cover a much larger area than that encompassed by Keltic's site or adjoining licenses, which suggest to me that Keltic paid no specific and particular attention to mineral exploration licenses within the area where it is constructing its LNG and petrochemical infrastructure. I point out that no substantive details are provided, and Keltic was asked to provide details. There is no information as to the number of claims that are comprised in any of those licenses, the area of land encompassed within the licenses, no information as to the number of years the licenses have been held, no information as to the amount of money expended in exploration of the lands by the present license holders or the monetary and other requirements to renew, maintain and hold the licenses, the value of the licenses, etc. All of this information, I suggest, was readily available to Keltic had it chosen to communicate with relevant stakeholders, in this case, Greyhawke or Heartland, who have held the subject claims, as I said, for more than 26 years, which is more than a quarter of a century. Thus, in our view, Keltic's EA report fails to provide

details of areas under existing mineral exploration licenses as is required by the terms of reference. At Section 9.0 on page 14 -- and I refer to that -- which required that the EA report identify and predict the magnitude and importance of project impacts, and Section 10.0, which is on page 19, and it's under the heading, "Proposed Mitigation," Keltic was required to describe all measures that have or will be taken to avoid or mitigate the impacts from its project. Paragraph or Section 10 also requires that Keltic describe proposed compensation that will be provided when environmental damage is unavoidable or cannot be adequately mitigated by any other means. And Section 10.3, which is socio-economic impacts, requires Keltic to describe actions that would be taken to mitigate adverse impacts on private or existing industry and businesses, planned land use, etc. And it is noted at Section 10.0 that restitution for any damage can be through compensation or other means. Now, Mr. Chairman, as I said, the only reference I see in their report to mineral exploration licenses is that table, Figure 8.13-5, which I referred to. It's page 9.1, and the two tables, 11.1 and ES-1. And at Tab 8 -- excuse

me a minute -- okay, I guess I may be repeating myself  
-- it's Section 9 -- 9.1 says:

"The lands taken up by the project will  
remove the lands from mineral extraction."

and goes on to say:

"The potential value of the resources or the  
future impact of not extracting minerals from  
these lands is uncertain."

I would comment, Mr. Chairman, that in removing the  
potential for mineral extraction from lands comprising  
Greyhawke's mineral exploration license, Keltic is, in  
essence, and effectively rendering Greyhawke's  
exploration license valueless. There's no business  
reason to expend money exploring and developing a  
mineral exploration license when it is known that as a  
result of the Keltic project, minerals cannot be  
extracted from the lands covered by the license.  
Further, the potential for mineral extraction is  
fundamental to the determination of the fair market  
value of a mineral exploration license. Greyhawke has  
in hand, as I mentioned before, no less than four such  
valuations, all carried out by independent consulting  
geological mining professionals. Had Keltic chosen to

consult with Greyhawke or Heartland as stakeholders, Keltic would have readily learned that there are available professionally determined present values of the potential value of mineral resources on the Greyhawke lands. In both Tables 11.1-1 and ES-1, under the heading VEC, or valued ecosystem components, land use -- Keltic confirms that the lands taken up by the project and its components will remove the potential for mineral extraction from those lands. Yet, as I said -- and I find it most puzzling and troubling, Mr. Chairman, the table indicates that Keltic considers the effect of this to be minimal when they have indicated that they really don't know the effect, and they propose no mitigation or compensation to affected mineral right holders. Certainly a project which effectively reduces the fair market value of Greyhawke's mineral exploration license from more than eight hundred and forty-six thousand (\$846,000) to zero has a profound and major effect upon Greyhawke, although I do realize that eight hundred and forty-six thousand dollars (\$846,000) is but one-nineteenth of one hundred -- of one percent of the projected cost of Keltic's project. In that context, one might

rationalize why Keltic considers Greyhawke's loss of more than eight hundred and forty-six thousand (\$846,000) as being minimal. It should be noted at page 9 of the terms of reference, it is stated:

"For the purposes of this economic assessment, valued ecosystem components are interpreted as including socio-economic and reasonable enjoyment of property."

I believe it is important to note that property is not restricted to real property, and certainly a mineral exploration license is property which can be assigned, purchased or sold. Mr. Chairman, I'd like to now move on. How much more time do I have?

THE CHAIR

You're pretty close to the end. We do want to leave a little bit of time for questions if there are any.

MR. LOCKERBY

I understood I had 20 minutes.

THE CHAIR

Twenty minutes. Yes, that's right. Yeah. You started at 2:00 and I have about 19 after.

MR. LOCKERBY

In any event, I'll move on to Tab 10, and this is

important because it is an excerpt of the reasons for decision of the National Energy Board, MH4-98, and that was a case that involved Sable Offshore Energy Inc. And I will quickly go through it. You will note on page 2 and the findings of the Board:

"The approval process described by the Act is designated to involve all affected land owners and all affected parties."

The Board went on to say in its conclusion:

"It is regrettable that SOEI did not choose to consult directly or meaningfully with the holders of mineral exploration licenses during the planning phase of the determination of the detailed route."

It goes on to say at page 8:

"SOEI did not consult with the holders of licenses during the course of its detailed route selection process."

It further goes on to say at the bottom of page 8, the top of page 9:

"The interests of license holders, while they are dependent on and related to the Provincial Crown and mineral owner and

surface rights owner, form separate interests, that in the context of determining a detailed route under the Act may not be adequately addressed through contact only with mineral and surface rights only."

So the Board has clearly recognized the nature of the rights of mineral right holders. They went on to say:

"The Board is of the view that the failure to consult early in the planning process with holders of licenses puts into question the integrity of the proposed detailed route selection process."

Finally in that MH4-98 report, the Board's view -- it's expressed its view -- and I think this is important:

"The Board notes that Heartland's licensed area extends across the entire corridor in this area, and that its interests would be affected wherever the detailed route is located."

So the Board recognized pipeline infrastructure will affect the interests of the mineral right holder. Tab 11 is a similar type of decision. I won't go through it because of time, but that is the case of MH3-98,



which was a hearing which involved the National Energy Board and Maritimes & Northeast Pipeline Limited, and the Board had the same -- similar findings as it did in the case of MH4-98 and Sable. Now, with that, Mr. Chairman, I would like to, if I may, summarize my views and position. Greyhawke, and before it, Heartland and associated and related companies have held the mineral rights to certain of the lands in which Heartland -- or Keltic proposes to construct and operate its LNG project and components and have been stakeholders respecting these lands for more than a quarter of a century. During that time, as I said, more than eight hundred and seventy-four thousand dollars (\$874,000) has been expended in exploring and maintaining the claims in good standing. In contrast, I note that Keltic was incorporated only in the year 2000 and that it made its first public announcement concerning its proposed project just over two years ago in August of 2004. Notwithstanding that Keltic has fully known that Greyhawke, and before it, Heartland, have been stakeholders in the lands, Keltic has made no effort whatsoever to consult with or work with Greyhawke, or prior to that, with Heartland. This notwithstanding

that Heartland wrote to Mr. Dunn of Keltic on November 10th, 2004, shortly after it became aware of Keltic's proposed project through the press, and that Greyhawke wrote to Mr. Dunn in early October, 2006, after it became aware through reading the Keltic EA Report, that the lands taken up by Keltic's project and its components will remove the potential for mineral extraction from those areas. Neither Mr. Dunn nor anyone else from Keltic either acknowledged or responded to Heartland's and Greyhawke's letters. I submit, Mr. Chairman, that the effect of removing the potential for mineral extractions from the lands comprising Greyhawke's mineral exploration license, the average independent appraised value being in excess of eight hundred and forty-six thousand (\$846,000), is to render Greyhawke's mineral exploration license worthless. It is Greyhawke's position that Keltic has not complied with the terms of reference set down by the Nova Scotia Department of Labour and Environment in respect of mineral exploration licenses. While acknowledging in its EA Report that its project and its components will remove the potential for mineral extraction and have an adverse effect on mineral rights

holders, it has not proposed any mitigation or compensation that its required to do under Sections 10.0 and 10.3 of the terms of reference. Greyhawke firmly believes that one of the key purposes of and the intent of the legislation in Nova Scotia relating to the environmental and socio-economic effects of and damages emanating from industrial projects such as Keltic's is that all parties who are affected or suffer damage come out whole in the end. That can only happen when Keltic is required to mitigate all environmental and socio-economic effects and damages caused by and resulting from its project, and where environmental and socio-economic effects of damages cannot be fully mitigated, to make restitution and pay fair and full compensation for damages suffered. Mr. Chairman, it is my view that there is a clearly documented history of major and multi-national companies involved in the natural gas industry in Nova Scotia failing to deal openly and fairly with mineral rights holders who are affected by and suffer damage as a result of the construction and operation of their infrastructure. This is clear from NEB decisions MH4 and MH3, which I previously referenced. I also suggest it is clear from

the fact that Keltic has apparently deliberately chosen not to communicate with and work with Greyhawke respecting Greyhawke's mineral rights. Failing the reasonable support of the regulatory agencies such as the Nova Scotia Environmental Review Board, it is apparent that the rights of mineral exploration license holders will continue to be ignored by major and multi-national gas companies constructing and operating gas-related infrastructure in Nova Scotia, and the damages caused to mineral rights holders will not be recognized or addressed. Mineral license holders will be left with no alternative but to seek justice through the Courts. That is not a desirable situation or a realistic alternative. Most individuals in small companies simply cannot afford to challenge major and multi-national gas companies who construct and operate multi-billion dollar industrial infrastructure and generate millions of dollars of cash flow daily. And in that regard, Mr. Chairman, I can state one such case here in Nova Scotia that is presently in the Courts -- and this has been going on for eight years. And that's not the way these things should be addressed. Thus, Mr. Chairman, Greyhawke respectfully asks that your

panel recommend to the Minister that a condition of Keltic being awarded and issued the permits and licenses or approvals requisite to the construction and operation of its proposed project and its components be that Keltic shall fairly and fully compensate those who hold mineral exploration licenses or held mineral exploration licenses at the time Keltic publicly announced its proposed LNG plant and components for loss in fair market value of their licenses as a result of Keltic's projects and its components removing the potential for mineral extraction from the areas held under the mineral exploration licenses. I suggest that restricting compensation to those who held mineral exploration licenses at the time the project was announced will rightfully exclude parties who acquired licenses after the project was announced for what might be nefarious reasons. In that regard, Mr. Chairman, I also suggest it would be highly desirable that the panel provide guidance to the Minister as to the methodology upon which such damages are to be determined. I again want to thank you for this opportunity to provide this input to the panel and I trust you have found this presentation helpful. Thank

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you.

THE CHAIR

Okay. Thank you very much. Do we have any questions for Mr. Lockerby regarding his presentation?

GREYHAWKE RIDGE MINERALS INC. - QUESTIONED

THE CHAIR

Okay. Just for clarification, Mr. Lockerby, you mentioned a reference to license holders at the time that the project was announced, and I don't know, maybe you or Keltic have the information as to exactly what date that was. We don't have that offhand. The date the project was announced.

MR. LOCKERBY

The first public -- I referenced -- the first public announcement I'm aware of was in August, 2004.

THE CHAIR

Okay. Is that ---

MR. LOCKERBY

I imagine Mr. Dunn would have a clear idea of that.

THE CHAIR

Is that correct?

MR. DUNCAN

We can find the exact date. Our recollection is it was

prior to that date as well, but we can supply that to the panel. (Undertaking)

THE CHAIR

Okay. If you would, yeah, please. Okay. A question for Mr. Lockerby?

MR. MacDONALD

Yes.

THE CHAIR

Okay.

MR. MacDONALD

Good afternoon, Mr. Chair. A couple of questions. The -- I just wonder ---

THE CHAIR

Could you just -- sorry, just identify yourself.

MR. MacDONALD

I'm sorry, Gordon MacDonald, Guysborough. The property for which you have your mineral claims, can you just provide some background in terms of who -- who does own those properties?

MR. LOCKERBY

Presently or over the years?

MR. MacDONALD

Presently.

MR. LOCKERBY

To my knowledge, the -- certain of the lands are owned by the Municipality of the District of Guysborough. Certain of them are owned by Nova Scotia Power. Certain are owned by Sable Offshore Energy. Certain of them are Crown lands. And there are numerous packages privately owned.

MR. MacDONALD

Could you just provide some -- a copy of owner's consent to conduct your geological work on these properties as well? Is that something that you would be able to make available?

MR. LOCKERBY

Mr. Chairman, in response to that question of owner's consent, land access is a matter which a mineral exploration company typically seeks when it is about to carry out mineral exploration. It is not something that it acquires and maintains perpetually when no exploration is contemplated. In the case of these lands, we have previously on a number of occasions received all required surface access permits. At that time, these lands were Crown lands. We subsequently, after the sale of those Crown lands, again received



from the Crown surface access permits. We have not been denied an application of surface access with the exception of Nova Scotia Light & Power. And in any event, the end determination about access is not made by the surface owner, it is made by the Minister, and the Minister has never denied -- nor has an application been made for surface access. I hope that answers the question.

MR. MacDONALD

I'm just -- I'm not certain whether the answer was "yes" or "no" in terms of whether you'd be able to undertake to provide any of that background information.

MR. LOCKERBY

Sir, the answer is if you want copies of access permits we've had, I can certainly provide those to you. If your question is do we have one in place today, the answer is "no." None has been applied for today.

MR. MacDONALD

Okay. A final question. You mentioned some of the previous rulings in other cases, and you raised specifically the -- both the Sable project and the Maritimes & Northeast project. I wonder if you just

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could provide some background in terms of the rulings in terms of compensation -- about the compensation issue. Were you compensated in both of those cases?

MR. LOCKERBY

Sir, these matters are before the Court, and for that reason, I am not prepared to get into that type of -- entertain that type of question at this time.

MR. MacDONALD

Okay.

THE CHAIR

All right. Thanks very much.

MR. LOCKERBY

Thank you.

THE CHAIR

Thank you.

MS. McNULTY

Actually ---

THE CHAIR

Yes. Sorry.

MS. McNULTY

My name is Karen McNulty. I've actually got the hat on as an individual from Guysborough County. I'm also a geologist who actually does exploration, and I've

actually done some work in that area. Wayne, when is the last time you've been physically on the ground to do some exploration?

MR. LOCKERBY

Doing exploration? The last exploration that was carried out was in 1989.

MS. McNULTY

1989. So subsequent to that, what have you done to keep the claims over -- since that period?

MR. LOCKERBY

At that time, we had access -- I might explain, Mr. Chairman, that to keep claims in good standing, one has to pay a yearly renewal fee and one has to carry out a minimum expenditure in exploration on the claims, and if one carries out more than the required exploration expenditure, those credits can be accrued and applied in future years against the work requirement on the claims. At the time Ms. McNulty is referring to in 1989, we probably had about six hundred and some thousand dollars of credits. We had no need to carry out exploration on those claims at that time in order to maintain them. As I mentioned earlier, the price of gold declined to two hundred and eighty-nine dollars

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(\$289), and it was not an attractive point in time to be carrying out exploration or raising funds for exploration. But that is not to suggest at all that it reflects at all upon the merits of the claims.

MS. McNULTY

Two or three years ago, the price of gold had been quite high. At any point during this time, did you think of actually going on the ground to do further exploration? Two or three years ago, the price of gold was pretty high. Or its exploration had ---

MR. LOCKERBY

I'm sorry, with due respect, I don't recall two or three years ago, it being quite high. I recall that it basically has been an upward climb from 1998 when it was two ninety-eight or two ninety-five.

MS. McNULTY

Okay. Let me rephrase it and come at a different angle, just like a lawyer would. At any point, did you think you might go on the ground and do further exploration and spend some more money, as opposed to sitting on the credits from point to point, if you thought the value of the property as ---

MR. LOCKERBY

Certainly that has been something that has been considered, but in view of the fact that this project was announced and not knowing where and what the outcome would be as it affected our rights, it was determined it would not be a sound business decision to provide, with that uncertainty, in spending more money until there was some certainty. And I think now we've got that certainty. We would have spent that money for nothing because mining can't be carried out.

MS. McNULTY

The licenses issued by the Crown, Department of Natural Resource -- at any point during this time, did you ask the Minister with respect -- or tell him about the situation? And what was the Department of Natural Resources stand with respect to your rights?

MR. LOCKERBY

About which -- I'm sorry, about which situation?

MS. McNULTY

Right now, you're asking for compensation. At some point, did you go to the Minister -- being really frustrated -- I can give you an example as a side bar. I held a license to a piece of land that was along Exhibition Road in Halifax, which was an industrial

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park, industrial park, and they refused -- the HRM refused me access to that particular property. I went to the Minister wanting to get on to do some exploration, and in the end, the Minister ruled in favour of HRM. Did they -- did they help you at all?

MR. LOCKERBY

We have -- I think, Mr. Chairman, I stated earlier, we have not made any application to the Minister.

MS. McNULTY

Okay. Do you know where they stand with respect to ---

MR. LOCKERBY

No.

MS. McNULTY

--- the license and your claims, your claims for compensation?

MR. LOCKERBY

Where they stand?

MS. McNULTY

I guess I understand that the issuance of a surface -- the issuance of a license for subsurface rights does not necessarily guarantee you access. Unfortunately there is that. Do they stand behind that license, i.e., as a Province?

MR. LOCKERBY

I think the position of the Department of Natural Resources is that, as is stated in the Act, a license is subject -- or to exercising the right is subject to either, one, as I said earlier, being granted access by the surface rights owner, who does not have the final say because the section of the Act provides that if it is not granted by the owner, application can be made to the Minister and the Minister can make that determination. And I again repeat we have not made any such application. And with one exception, we have not been refused access by any property owner.

MS. McNULTY

Okay. One ---

THE CHAIR

I think -- excuse me, at this point, in the interests of our schedule, we are falling behind, and I want to make sure we have time for the other presenters. I think I'm going to ---

MS. McNULTY

Okay. Thanks, Wayne.

THE CHAIR

I'll cut it off there. Perhaps we might have time at

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the end to return to some of these issues if we can.  
Thanks very much. Our next presenter is Nova Scotia  
Department of Transportation and Public Works, if their  
representative is ready.

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MR. MICHAEL CROFT, (Affirmed)

MR. PHIL CORKUM, (Sworn)

NOVA SCOTIA DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS  
PANEL - PRESENTATION

MR. MIKE CROFT - PRESENTER

Mr. Chairman, Panel Members, representatives of the  
proponent, and members of the audience, my name is Mike  
Croft, and I'm with the Nova Scotia Department of  
Transportation and Public Works, and I'm here today to  
represent the Department as an intervenor at these  
hearings. The Department of Transportation and Public  
Works -- we're not here to oppose any aspect of the  
proposed project. Our objective today is to make the  
Panel Members and the proponents aware of the issues  
involved in using the existing highway system to  
transport people and materials between Highway 104 and  
the Goldboro area. Just as some background  
information, the proposed petrochemical development



will increase traffic on existing highways between Highway 104 and Goldboro. We are aware that a lot of the larger and heavier loads will be transported via the marine terminal, but there will be increases on the existing highway system. The proponent, based on the EA Report, has considered various options for transporting people and materials between Highway 104 and the Goldboro area, and also based on what we read in the Environmental Assessment Report, the proponent has decided to utilize the existing highway system, and that was based on scheduling and cost considerations. The EA Report does indicate that the traffic generated will place additional demands on the existing highway system, requiring upgrades and careful consideration of scheduling of project-related activities. The Environmental Assessment Report indicates that during construction, the traffic -- the two-way traffic generated between Highway 104 and Goldboro will be around 1,100 passenger cars per day and about 10 trucks per day, and during the operational phase, that'll be around 500 passenger cars per day and around 100 truck trips per day. It's expected that the truck trips would be distributed throughout the day, whereas the

passenger trips would probably be concentrated more at times when there's shift changes at the site. We'd like to point out that these volumes, although they appear to be a fairly substantial increase compared to what's there now, are well within the capacity of the existing highway system. This plan shows the identified routing that's proposed in the Environmental Assessment Report. It's shown as the purple line on the plan. This routing uses existing highways, Trunk 7 from Highway 104 to just south of the Antigonish/Guysborough County line. Then it cuts across on Route 276 near Goshen and then follows Route 316 down to the development site at Goldboro, and it's approximately 77 kilometres in length. This plan shows the existing traffic volumes that are on -- this is on a daily basis. They vary from a low of around 450 vehicles per day on Route 316 near Goldboro to a high of around 5,000 vehicles per day on Trunk 7 near Highway 104. With regards to a traffic impact study, the proposed petrochemical facilities at Goldboro, based on the Department's current policies and procedures, would require a detailed traffic impact study to be completed. And this traffic impact study, it would be

focused on local roads that are in close proximity to the development site, and it would also focus on the identified access route between Highway 104 and Goldboro. Some of the elements that would likely be considered in the traffic impact study would be things such as the strength of the existing roadways, travel speeds, geometric design standards, the structures, which would include bridges and culverts, safety aspects along the highway system, level of service, maintenance requirements, and also as part of this project, it's proposed by the proponent that a section of Route 316 near the development site would be relocated, and the impacts of this relocation would also have to be looked at in the traffic impact study. One of the primary areas of -- I guess of concern or consideration is the strength of the existing highway to carry the loads that would be placed onto it. The Environmental Assessment Report indicates that it's essential for the development to have 50,000 kilogram all-weather, full-strength capability along the access route. Right now, today, the only section of the access route that has that strength, that has the asphalt and the gravel thicknesses to carry that load

is Trunk 7. Routes 276 and Routes 316 have standard strength, which is 38,500 kilogram strength. And there are sections of Route 316 which have spring weight restrictions on them, which means the loadings during probably six to eight weeks in the late winter and early spring would actually be less than 38,500. The end result of this is that in all likelihood, there will have to be road strengthening done or some adjustments to the developer's operational requirements. With regards to travel speeds, the posted speed limits along the identified routing vary between 60 and 90 kilometres per hour. And based on the Environmental Assessment Report, the travel time from Highway 104 to Goldboro is estimated at around 57 minutes. If the proponent requires for their operational purposes a quicker travel time between 104 and Goldboro, there will have to be in all likelihood some geometric improvements made to the highway system, and there's also -- there's a possibility that there may have to be some bypasses through some areas that are more heavily developed and have lower speed limits. With regards to the geometric design standard, from the Department's perspective, it's desirable that the

entire routing from 104 to Goldboro be an arterial-type design standard. This is to accommodate the higher volume of larger, heavier vehicles travelling at higher speeds. Currently today, Trunk 7 is the only section of the identified routing that's an arterial standard. Route 276 and Route 316 are both a collector standard. TPW's arterial type "D" standard with a 90 kph design speed may be required along all or portions of the routing. And to upgrade a collector road to an arterial standard, you would normally have to do things such as lane widening, shoulder widening, geometric improvements and possibly some intersection upgrades. The structures -- some of the structures -- well the structures on Trunk 7, which is a 50,000-kilogram loading highway, they would be fine, but if the -- if there's going to be strengthening of the highway and increased loading with regards to the trucks, there are some structures, which would include bridges and culverts along sections of Route 276 and Route 316, that may not have adequate strength to handle the 50,000-kilogram loadings. And they may also not meet geometric standards for an arterial highway. So basically all the existing structures along Route 316

and along Routes 276 would have to have some sort of a structural analysis completed to ensure that they had the strength to handle the additional loadings. And if any structures are found to be deficient, they'll have to either be upgraded or replaced. Safety is a concern along the identified routing. It should be noted that the -- we did check the collision statistics on the existing highways, and we found that there's nothing abnormal about the collision rates. They're at normal or maybe even above the normal collision rates as far as safety. So there's no issues there today that we're aware of. However, with increased volumes and potentially increased speeds, and a higher percentage of heavy vehicles using the road, there may be some reduced safety performance levels, and that would have to be assessed in the traffic impact study. If speeds are increased along the roadway, there is a possibility that we might have to looked at the geometry of the road and sight distances at intersections to ensure that they're adequate for the speeds. Level of service -- when we're talking about a rural arterial road, the level of service that's provided to motorists is based pretty well entirely on travel speed and on the

percentage of time that vehicles spend travelling behind a slower vehicle. And we all know how frustrating that can be. The existing levels of service -- because of the low volumes that are there now, the existing levels of service along the identified routing are very good. However, with the addition of particularly trucks, slower-moving vehicles, there may be a reduction in the level of service, and this would be most noticeable in any areas that have steeper grades or longer grades where trucks are slowing down. So there would probably have to be an assessment of the need for some passing lanes or climbing lanes. Road maintenance -- the level of maintenance that TPW puts into a road is based to a large degree on the classification of the road and the amount of traffic that's on that road. And of course, a higher standard of road requires higher levels of maintenance, and there's an increased cost to the Department. Currently today, it costs between twenty-five thousand and thirty thousand dollars (\$25,000 - \$30,000) per kilometre per year to maintain a two-lane collector or arterial roadway. So it's very expensive. I just want to talk a little bit about the proposed

realignment of Route 316 at the development site. At the development site today, Route 316 goes along the shoreline. Based on the Environmental Assessment Report, there is a proposal to remove -- it's about a 3.3-kilometre section of Route 316 to facilitate development of the site. And there is a realignment that's proposed in the EA Report to realign Route 316 to the northeast of the site. The Department's not aware of what was -- what went into identifying that route, and there are some potential concerns with the routing that's been identified. I guess it's not a typical realignment routing that the Department would look at. The line in green, which doesn't show up all that well, that would be typically the type of an alignment -- realignment that the Department would look at. And there may be very good reasons that we're not aware of. We don't know what constraints exist in this area. There's been no analysis or no study done. There may be good reasons why that alignment can't be built, but it has the advantages of being shorter than the one that's proposed and more direct. One of the issues with the purple line is the fact that there's quite a few houses in the Seal Harbour area, and these



people would be required to backtrack. They're basically being put on a dead end street, dead end road, and they would be required to backtrack to get onto the highway, and it's quite a bit of an additional -- and it's much better to keep them along the existing routing like this. And this routing that's been identified is about 6.9 kilometres compared to about 9.4 kilometres for the routing that was identified in the EA Report. And this -- this routing up at the north end there like this is very -- I guess the best word I could use is unusual alignment to make traffic go like that. The other issue is the maintenance costs. And I put up a slide before. It does cost about twenty-five to thirty-five thousand dollars (\$25,000 - \$35,000) per kilometre per year to maintain a roadway. The green alignment is about three and a half kilometres shorter, so there's a decrease in cost to maintain over time. In conclusion, the proposed petrochemical plant and LNG facilities, they will have an impact on the existing road system between Highway 104 and Goldboro. A detailed traffic impact study is required to determine what mitigation measures are required to assure a safe, efficient and economical

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access route. And the Department of Transportation and Public Works believes that the routing identified in the EA Report with any upgrades that are identified in a traffic impact study is an acceptable and feasible option for transporting people and material between Highway 104 and the site at Goldboro. That's the end of the presentation. If there's any questions.

THE CHAIR

Okay. Thank you.

NOVA SCOTIA DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS  
PANEL - QUESTIONED

THE CHAIR

I have one question on behalf of the panel. We do note that some of the information in your slide show is not included in the written submission that TPW provided. So we're just wondering if we can get a -- I guess an electronic copy of the presentation would be ---  
(Undertaking)

MR. CROFT

Yes. That's not a problem. Yeah.

THE CHAIR

Okay. Thank you. Okay, now we're asking maybe a hard copy along with that, just for the records.

MR. CROFT

Yeah.

THE CHAIR

Thanks. Any questions from the audience for  
Transportation?

MR. DUNCAN

Mr. Chair, maybe just ---

THE CHAIR

Yes.

MR. DUNCAN

Also, as a point of clarification, the figure in the routing that was shown, maybe -- yeah, exactly. The purple line, as shown there, I believe that was submitted, as you indicated, in the Environmental Impact Assessment, as the routing. I think a subsequent correction was submitted to the Board that showed that there was an error in that routing. The section that goes into Drumhead there is -- has been realigned to more closely follow the green alignment that you currently -- or would suggest would be a better alternative. So, that was a mapping error, and we had submitted that correction, I believe, to the Board.

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MR. CROFT

Okay.

MR. DUNCAN

I think the original purple line, as well, followed an existing road, and it was originally, again, put on as a proposed alignment, just because of some existing road infrastructure. But certainly, that was the rationale for the original selection of the purple alignment.

THE CHAIR

Okay. Just on behalf of the Panel, I do recall that there was a subsequent figure that did show something much more like that. For the records, and so we can make sure we can locate it, do you know approximately when that was submitted to the Panel?

MR. DUNCAN

We're just -- someone's looking it up right now. As soon as I get the answer, I'll let you know.

THE CHAIR

Yeah. Okay, thanks. I do have a few questions for Department of Transportation, if I could. You mentioned early on that there had been a -- originally in the Environmental Assessment, there was another

alternative that had been shown, which was creation of a new -- I'm not sure of the term, a trunk highway, but a creation of a new highway from Antigonish to Goldboro that Keltic had proposed to undertake. And I think you indicated that they had abandoned that concept, and removed it from their project description ---

MR. CROFT

That's correct, yes.

THE CHAIR

--- as a result of cost and scheduling. I do recall, and I think I gathered this just from media coverage at the time, that there was some indication that Transportation and Public Works had indicated they were not prepared to take over that road, if it was constructed by Keltic? Is that the case?

MR. CROFT

I am not personally aware of that -- of the Department taking that stance. It's something that I could look into, and get back to you on. (Undertaking)

THE CHAIR

Okay. Thanks.

MR. CROFT

I would just like to reiterate what we -- pardon me?

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I'd like to reiterate that the Department of Transportation and Public Works does believe that the routing identified in the EA report using existing highways is a feasible option. The existing highways with upgrades, as may be determined in a traffic impact study, would be able to accommodate the traffic as generated, in a safe and efficient manner.

THE CHAIR

Okay. Thanks. You mentioned the requirement for a traffic impact study that would need to be done. I just wanted to clarify, would that be a study that would be done by Transportation and Public Works, or is the expectation that would be a study done by Keltic?

MR. CROFT

The expectation is, that would be a study done by Keltic.

THE CHAIR

And does Transportation Public Works have the authority to require that that study be done, or is that something that you would expect or require -- require -- would you need the Panel to make that recommendation, as part of our report? Or can you require that independently?

MR. CROFT

The Department of Transportation, our current policies and procedures does allow us to request a traffic impact study from proponents of any development.

THE CHAIR

Can request it, but can you require it?

MR. CROFT

It's -- yeah. It can be a condition of getting access to the highway system.

THE CHAIR

Okay. Finally, could you just go back to the slide that showed the -- either -- yeah, the two different alignments. And I'm just -- my question is, do you know what the land ownership currently is, that would be required for, actually, either one of those proposed routes there, for 316?

MR. CROFT

No. We don't have that information available.

THE CHAIR

Does Keltic know?

MR. DUNCAN

We do have some land ownership mapping. I don't know if we've mapped the route against the land ownership,

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but that's a figure, certainly, we could provide, if it's of benefit to the Panel. Yeah, I'm pretty sure we understand the land fabric there, and could relatively -- could easily provide a figure for that.

(Undertaking)

THE CHAIR

Okay.

MR. CROFT

I'd just like to add that, typically, for this standard of highway, the width of the right of way that would be required be 20 meters. If you're in areas with a deep cut, or a deep fill, then you may need more than 20 meters, but typically, it's 20 meters.

THE CHAIR

Okay. Thanks. And I guess, actually, a question for Keltic. I take it you do not presently own the land that will be required for either of those alignments?

MR. DUNCAN

No, we don't own any land in that area, actually, so we would be evaluating the requirements. Again, a lot of the work that we're talking about here would need to be done in consultation with Transportation & Public Works to evaluate those types of requirements and issues. As



a matter of course, when you speak to requesting or requiring these types of studies, the proponent itself, as a matter of business, would have to evaluate those crossing structures, as indicated, for safety purposes, for bearing capacity, for their vehicles. So, certainly, that would be a study they would do, just as course of their development to ensure that the those crossing structures can support the weight of the vehicles that are being contemplated. So, that would -- that certainly is a standard thing that would be undertaken, as part of this type of development.

THE CHAIR

Okay.

MR. DUNCAN

Just as a follow up to the submission of the drawing to the Panel, I believe it was October 26, the revised figure was sent to the Panel.

THE CHAIR

Okay. Thanks. If there are upgrades required as a result of the traffic impact study, who would fund those upgrades? Would Transportation and Public Works undertake that work?

MR. CROFT

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Typically, it's the proponent that's responsible for any road mitigation or upgrades that's required as a result of their development.

THE CHAIR

Okay. And the same would apply to the realignment, if that's done?

MR. CROFT

That's correct, yes.

THE CHAIR

Okay. Thanks. Any other questions?

MR. MacDONALD

Gordon MacDonald from Guysborough. I wonder, Mr. Chair, if Keltic might be able to provide any correspondence regarding the original intent of the highway proposed by Keltic, in relation to Department of Transportation servicing that highway? If that's correspondence that Keltic might be able to provide?

THE CHAIR

Okay. I'll ask them that.

MR. DUNCAN

This is in reference to the originally proposed alignment?

MR. MacDONALD

Yes.

MR. DUNCAN

Yeah. I believe we've got correspondence from Transportation and Public Works with regards to the originally proposed alignment. I don't believe there's any issue with providing that to the Panel.

(Undertaking)

THE CHAIR

Okay. Thanks.

MS. GAGNON

Wow. Somebody was tall. Okay. Chantal, Ecology Action Centre. Got a few questions for you. Okay, the new roads -- or the roads would have to be upgraded, and you mentioned widening, and all kinds of different things needing to be done. How will this affect neighbouring properties? Will some homes become, now, too close to the highway? Will they lose land? Is the change needed, big enough to impact homes all along these little -- the 316 and 276?

MR. CROFT

Well, we don't know the exact nature of all the improvements that would be required. I mean, that's something that would be determined in a traffic impact

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study. We would expect that most of the improvements and upgrading could probably be accommodated within the existing right of way. There may be some locations where we'd have to realign, if there's -- if the geometry of the road is not capable of -- or it's not up the standards that are required, we may have to do some realignment in some locations, which may impact some private properties. But I would expect most of the improvements could be done within the existing right of way.

MS. GAGNON

Okay. And you mentioned structures that would need modifying, such as culverts and bridges. And I know from that map right there, the little -- over Isaac's Harbour is pretty tiny. What would -- would the environmental -- I'm sure you have an environmental services branch that would look at the environmental impacts of these, and would they be considered to be -- well, you maybe don't know this, but should they be, or wouldn't they be added to the impacts of this project, in conceiving all the new modifications that will need to be done?

MR. CROFT

Well, I guess, first of all, we have to determine what modifications would be required. This matter of strengthening an existing structure, adding -- you know, I would say that typically you -- we wouldn't need environmental approvals to strengthen a structure. If we actually had to tear a structure down, and replace it with a new one, then there probably would be some environmental approvals that would be required. Now, whether that would be included as part of this project or not, I can't really comment on that.

MS. GAGNON

Well, out of curiosity, if the old alignment highway had been kept in, would that have been included in this Environmental Assessment?

MR. CROFT

I can't really -- I'm not really familiar with the other alignment that you're referring to.

MS. GAGNON

Okay. There has been mention from another gentleman here, Mr. Kelly, about working on an alternate route, or a different -- he was mentioning at a previous session about the Antigonish Guysborough Road, and something about that being a good road to be used for

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accessing the Keltic site. Is the Ministry aware of this road, and where are you standing on the feasibility and accessibility of that road, and what it would be?

MR. CROFT

Are you referring to an alternate alignment that involves constructing a new road, or ---

MS. GAGNON

I'm not sure if it involves constructing new parts of road. It was a -- I guess the Chair can answer.

THE CHAIR

Yeah, I'll try to. This was the subject of a previous presentation at the hearings. There is a Guysborough -- sorry, Antigonish Guysborough Road Committee, something of that nature. They have proposed an alternate route, which we understood used existing roads, but I believe they are, you know, sort of dirt -- a lot of it is dirt road or back road type of routes, which would obviously have to be upgraded. We have asked that particular presenter for a map showing the proposed route, but we haven't received that yet.

MR. CROFT

I don't -- I don't think we've seen that routing that

you're referring to. We -- the Department thinks that the route that's been identified in the EI report is an acceptable route, like I said, with any upgrades that may be required.

THE CHAIR

Okay. Thanks.

MS. GAGNON

Okay. Now, another one, because I'm getting confused. 316 realignment. When did the Ministry of Transportation know about -- be informed about the realignment of the 316, or that it would need to be cut and realigned, and receive the information regarding that?

MR. CROFT

I'm not aware of the exact date that the Department was made aware of the realignment. When we -- I guess it was when we received the Environmental Assessment Report.

MS. GAGNON

Okay. I guess my question to, then -- I guess it would be to Keltic, when did Keltic know that the 316 would be realigned, and planned this realignment, as well?

MR. DUNCAN

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I assume, Mr. Chair -- I'll just respond.

THE CHAIR

Sure. Yes.

MR. DUNCAN

Okay.

MS. GAGNON

Sorry for ---

MR. DUNCAN

Sorry, I thought -- okay, anyway. With respect to the realignment, I think there's a time line here associated with the correspondence with Transportation and Public Works associated with the previously proposed alignment. As we've talked about, there was a previously proposed realignment which is, more or less, a relatively straight line from Goldboro to Antigonish. A corridor was proposed, to have a new highway constructed within that corridor. The correspondence -- and we're getting -- as I said, we're getting the date of that correspondence, but it was early in the summer, I believe, where correspondence indicated that that would not be acceptable to the Department, and they would not evaluate it as -- with regards to the Environmental Assessment. The decision at that point



was to re-evaluate the existing road infrastructure, to determine if it was appropriate, or it could handle the existing, or the proposed, traffic volumes.

MS. GAGNON

And ---

MR. DUNCAN

So, over the summer period, those -- a traffic evaluation was conducted, and determined as -- TPW has indicated, that that road infrastructure would be acceptable, for the volume that we're talking about ---

MS. GAGNON

Right.

MR. DUNCAN

--- with potential upgrades. At that time, it was determined that the Route 316 would need to be realigned around the facilities, as it cuts -- currently cuts through the zoned industrial park.

MS. GAGNON

Right. Okay. So, you're talking about the 58 kilometre highway, or so, that was proposed directly behind -- behind the site, up straight to Antigonish?

MR. DUNCAN

That's correct.

MS. GAGNON

Right. Well, this is where I'm confused, because, as you just said, the 316, as it is now, would run through the petrochemical facility and LNG facility. And to my knowledge, or, at least, the way I, I guess, see it, from when you conceived the wharf and the terminal and the piping and -- of the LNG to the storage tank, and then the petrochemical facility products to the Marginal Wharf, it means that you would have conceived that knowing, or keeping, that highway going through. Like, to me, it should have been clear that from the moment petrochemical products were going to be put to the Marginal Wharf to be shipped out, and liquified natural gas would be shipped in, that it wouldn't be feasible to have a highway going through those facilities. And, so, the realignment of the 316 should have been determined earlier, and then an actual alignment with coordinates, and number of wetlands, and rivers it crosses, and all that stuff, should have been known whether -- regardless of whether or not the 18 -- 58 kilometre highway was to go through, or not. Because you -- I mean, safety-wise, it wouldn't have been safe to have a highway going in between those

structures.

MR. DUNCAN

Yeah. And I've just been corrected by Mr. Dunn. You're correct. The highway alignment is independent of the previously proposed highway alignment to Antigonish. So, at that point, when the project was conceptualized, or when the details of the structures with respect to the storage tanks and the LNG, where they would need to be located, it was determined, at that time, that that road would likely have to rerouted, and plans were, then, at that time, determined -- or were evaluated about rerouting that 316 around the facilities.

MS. GAGNON

So, when was the population -- excuse me, when was the people around there informed, at first, that their -- 316 was going to be rerouted?

MR. DUNCAN

I believe there were some open houses where this was discussed. I'll go back to the dates of those open houses, but there was a discussion of realignment of this road at those open houses, with consultation in the area.

MS. GAGNON

Okay. Well, I guess my questions aren't for you anymore, I guess they're more for Keltic, but I guess with the realignment, then, how many wetlands it crosses or doesn't cross, rivers and streams it crosses. As you mentioned, the realignment -- the new map -- corrected map was October 26, and that's the green, but the map in the report is the purple. So, I remember from reading the report, there's not that much information as to this realigned road, how many streams or wetlands it would cross, or not, and where it would be. I remember reading it had something to do with the Maritime Northeast pipeline easement, or something like that, or along that road. So, it seemed to me that information should be available, and included in the Environmental Assessment process. The -- and if the right map is the green, then it should be those information that's included, so -- I just think that maybe the Panel should ensure that that information is available to the Panel, for when they make their recommendations, because it's not. And thank you. And sorry for making you stand up there that whole time. Okay.

THE CHAIR

Okay. Thank you. So, maybe just to follow up, then, the information about stream crossings for the final realignment of 316, as proposed. Is that information -- could it be available?

MR. DUNCAN

Yeah, and maybe just as a point of clarification, the information on the proposed realignment 316 is in the EIA, in terms of environmental setting. There was -- as we mentioned, there was an error in the mapping that was provided with the EIA, that purple line. The information, as provided, does correspond to the green alignment, in that -- the corrected figure. This isn't our figure, but the corrected figure that was submitted to the Panel. So, we believe the information is provided in the Environmental Assessment document.

MS. GAGNON

Sorry. To make it easier to find, do you know which section that's in? Please?

MR. DUNCAN

Just give me a minute, and I'll look it up, please.

THE CHAIR

I believe we've got it here. It's 2.4.1.8. Maybe you

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could just confirm that? Sorry, 2.4.1.6.

MR. CROFT

Just a little bit -- with regards to the realignment, I guess, make it clear that the Department of Transportation and Public Works were not opposed to the realignment. But at the same time, seeing as it will be expected that the Department of Transportation will take over and maintain this road in the future, that we would want to have some -- certainly have some input into the alignment. The expectation would be that the proponent would be, you know, funding the construction, and also, any work required to identify the routing, and getting all the approvals.

THE CHAIR

And I assume that would include acquisition of any land required?

MR. CROFT

That's correct, yes.

THE CHAIR

So, just -- have we confirmed, then? Is that the right -- the correct section number?

MR. DUNCAN

Yeah, that is the section number, with reference to the

description of the proposed realignment of the 316.

THE CHAIR

Okay.

MR. DUNCAN

That's correct.

THE CHAIR

Thanks. I think Penny had a question.

MS. HENNEBERRY

Penny Henneberry, Environment Board. In your presentation, you mentioned the appropriate right of way is 20 meters?

MR. CROFT

Yes.

MS. HENNEBERRY

In the EIA, the statement is, it's 50 meters wide, would be the approximate width for a two lane highway. Does that seem extreme?

MR. CROFT

Which highway are you referring to?

MS. HENNEBERRY

They're saying the right of way will have to be approximately 50 meters wide, to accommodate a two lane highway.

MR. CROFT

50 meters wide would seem -- depending on the terrain. You know, there may be times when you would need 50 meters, but that would certainly be quite a bit wider than our typical right of way requirements.

THE CHAIR

Okay. I just have one final one, and I think it's probably more for Keltic than Transportation, but you may want to comment. For Keltic, as I understand it, construction of the plant and the whole site layout, as you presently conceive it, does depend upon realigning Highway 316? In other words, you would not be able to lay your site out as it's laid out, if that highway remains there, because of safety concerns? And I understand that you have not yet acquired the land for the realignment. If you're unable to acquire that land, what happens?

MR. DUNCAN

Certainly, it's -- it is, as part of -- as you indicated, part of the facility layout that that road would have to be realigned. If that current realignment is not acceptable, or is unable to obtain it, we'd have to look at other alignment options. The



issue, really, is associated with the proximity to the LNG storage tanks that are in proximity to the unloading. So, we would look -- have to look at an alternate alignment, but it would approximate, or be similar to, what is being envisioned here, as well. Our understanding, just -- and again, I'll have to go back and provide that figure to the Panel, with respect to the land ownership. But most of the land ownership there is associated with Crown, or with the Municipality. And our preliminary evaluation is that we don't expect there to be any issue with respect to acquiring these properties.

THE CHAIR

Okay. Maybe I should ask, if a lot of it is Crown, then, is the Crown -- I don't know if you can speak to that. Is the Crown willing to provide the land, assuming you agree with the plant alignment?

MR. CROFT

I can't speak to what the Crown -- and you mentioned that some of the land was also owned by the County.

MR. DUNCAN

Sorry, the Municipality.

MR. CROFT

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The Municipality, yeah.

THE CHAIR

Okay. Thank you. Any other questions for  
Transportation? Okay. Thank you very much.

MR. CROFT

Thank you.

THE CHAIR

The next presenter is Construction Association of Nova  
Scotia. Do we have a representative to make that?  
Thanks.

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MR. ERNIE PORTER, (Sworn)

THE CHAIR

Okay. Go ahead, please.

CONSTRUCTION ASSOCIATION OF NOVA SCOTIA - PRESENTATION

MR. ERNIE PORTER - PRESENTER

Mr. Chairman, Members of the Panel, proponent, and  
people in the audience. Thank you very much for the  
opportunity to say a few words. I'm Ernie Porter from  
Bedford, Nova Scotia, and I'm here representing the  
Construction Association of Nova Scotia. The  
Construction Association of Nova Scotia, which I'll  
refer to as CANS, was founded in 1862, not by me. We

are a not for profit association, funded by voluntary membership dues, paid by companies serving the non-residential construction market in Atlantic Canada. CANS' 660 member companies include general, trade, and civil work contractors, manufacturers, suppliers, professional service providers, and other services, such as insurance and computer software. CANS provides programs and services to our members in the industry at large that support business development and growth, create a qualified work force through support, for training of new entrants, and upgrading, and ongoing education support, for those already in the industry, promote fair and standardized systems of tendering and risk allocation, and contribute to a profitable business environment based on a win/win model. CANS is recognized by the industry and government as a responsible and credible voice on construction industry issues. The construction industry in Nova Scotia is expected to account for over \$4 billion of economic activity this year. A typical \$10 million construction project would add 3-1/2 million to Nova Scotia's gross domestic product, and an additional 1.7 million to the provincial economy, due to purchases of supplies from

other industries. The industry will employ close to 30,000 individuals, generating over \$1 billion in payrolls. The average construction wage is consistently higher than the average industrial wage in Nova Scotia. For example, the basic wage for a unionized carpenter, including benefits, is in excess of thirty dollars \$30 per hour. Close to 60 percent of the construction labour force in Nova Scotia has post secondary education of some sort. Construction employment has been very strong, with a steady declining unemployment rate for the last five years. The Keltic project represents a very significant investment and opportunity for the construction industry in Nova Scotia, in terms of direct benefits, and indirect benefits. Keltic has the potential to directly account for nearly one-quarter of the construction industry's activity over the next three to four years, and we anticipate the indirect spin-off activity will also be significant. To get ready for this, CANS is working with other industry organizations and the Construction Sector Council, CSC, National Industry Organization, to ensure we have the skilled labour force needed to successfully execute the Keltic

project, as well as other major investment projects anticipated in the region. The "Construction looking forward, labour requirements for 2006 to 2014 for Atlantic Canada" report produced by CSC with extensive regional industry input, provides a valuable planning tool being used by the Nova Scotia Department of Education, and the Nova Scotia Community College to work with industry to ensure we have training seats sufficient to the needs of industry and the demands of individuals interested in the trades. The 2007 to 2015 version of this report is currently being prepared and with support from the Nova Scotia Department of Education will allow the industry and government to assess the impact of projects such as Keltic and other energy-related projects in Atlantic Canada in terms of educational requirements. CANS' ability to provide leadership and successful strategies to build skill and capacity in the industry is evidenced in the safety record of the construction industry. Ten years ago, the construction industry was one of the highest risk sectors in Nova Scotia. Today, someone working in a nursing home or providing home care services is more likely to be off work due to an injury than someone

working on a construction site. This is the result of more than ten years of commitment to changing our industry's safety culture by extensive training and investment in safety systems. The skills of tradespeople from Atlantic Canada have been highly valued across North America. We have provided people to support construction projects in New England, the Caribbean, as well as Central and Western Canada, and this is not new. We are all aware of the present trend in out-migration of workers from Atlantic Canada to Western Canada. This loss of skilled workers is detrimental to our region in general but particularly harmful to the construction industry because it's very challenging to attract young people to work in the trades, and then it takes many years for an apprentice to become a journeyman. We need to reverse this trend in order to retain and return skilled tradespeople and professionals needed in our industry. While I was driving here this morning from Halifax there was an interview on CBC with a gentleman who was talking about labour market issues, and he mentioned in that interview that it used to be common to only see "Help Wanted" ads or notices in windows in Tim Hortons and

other places that were paying minimum wage. That's not the case today. You see them in all sectors of employment in Nova Scotia. He made another comment saying that the work environment in Nova Scotia now is the same as in Alberta except without the money. We believe the Keltic petrochemicals project is vital to reversing this trend. The 3,000 construction jobs available over 3 years or more during construction of the Keltic plant will be very attractive to displaced Maritime construction workers who would much rather be working in Goldboro than in Fort McMurray.

Construction related spinoff projects resulting from the economic activity generated by the Keltic project will add to this positive effect. The benefits of reversing this trend are many. A few of the key ones are skills retention, return on investment in education and training, reduction in the social cost of family separation. CANS is of the opinion the Keltic project will be very beneficial to the construction industry in Nova Scotia and to the region as a whole. We encourage the Board to consider our position when rendering their decision, and we hope the outcome enables the Keltic project to proceed without delay. Thank you.

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THE CHAIR

Thank you very much. Are there any questions for Mr. Porter while he's here, questions on the presentation?

Yes, please?

CONSTRUCTION ASSOCIATION OF NOVA SCOTIA - QUESTIONED

MS. GAGNON

Hi, Chantal Gagnon, Ecology Action Centre. I'm just curious, you mentioned Alberta and workers there. What is -- because I've heard all kinds of things in the newspapers about the type of money they're doing out there. What is the average like going on your same average construction wage over there that they're making?

MR. PORTER

In Alberta?

MS. GAGNON

Yeah.

MR. PORTER

The feedback we are getting, and some of this is anecdotal because, you know, we're talking individuals more than someone doing a study, but the feedback we're getting is construction workers are no better off at the end of the day in Fort McMurray than here, even



though you hear about the case of someone being paid eighty thousand dollars (\$80,000) to drive a sewage truck. But, at the end of the day, the economic cost of being there, when you tally that up against the wage, their opinion, individuals' opinions is they're no better off.

MS. GAGNON

So we don't really have an idea of the average wage, just the end ---

MR. PORTER

No, I don't. You hear the stories and that's all that I have personally.

MS. GAGNON

Construction and construction. All right. Thanks.

THE CHAIR

Thank you. Any other questions for Mr. Porter? Okay. Thank you very much. And our final presenter today is Ms. Kathi Ryan. We'll just need to get you sworn in, please. Mr. Gordon.

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MS. KATHI RYAN, (Affirmed)

THE CHAIR

Go ahead, please. Thanks.

MS. KATHI RYAN - PRESENTATION

MS. RYAN

To the Board and the proponents and to the audience, thank you. Presenting today is a move out of my comfort zone, but I appreciate that I am able to express my views. I'm not an activist by nature, and have always preferred to effect change through example. Unfortunately, I did not learn about this project in time to give it the attention that it requires and deserves, but as I learned more about this proposal I found myself increasingly distressed by it, and along with this an awareness of my responsibility to my children and to yours. With that came an unwillingness to remain silent about what I believe is a proposal so wrong and so counter to the direction that humanity is meant to take. Today I want to be proxy for the silent voices who could not be here today, the mothers in jobs with families, for elders who couldn't, who may not know about this project, and for the creatures who dwell in the wild and, as well, for my two teenagers who look toward to their future with some faith that they will have some quality there. It was over 40 years ago that Rachel Carson published her book "Silent

Spring". In this ground-breaking book she warned of the dangers to the planet and all the creatures who dwell on it if we were to continue to expand industry and consume energy at the rate that we were. She spoke of the loss of species and of the natural environment due to the high levels of toxins that we were releasing into the air and the water, two essentials to our very existence. We are now living in just such an environment as she predicted, and instead of putting on the brakes to this kind of growth we are now facing the possibility of a highly toxic and potentially dangerous industry in this province, one of the few remaining places left where industry remains at a minimum. Instead of embracing this area of the province as having a unique and exciting opportunity to be a leader in sustainable and diverse economic growth, it is hugely despairing that we would consider growing in such a way that is clearly, given the knowledge we have, a definitive step backwards. Considering what we do know, that industry such as this leaves destruction in its wake, that our environment is now, not some date in the future, but now, so out of balance as to render this planet an unsafe place to live, given this, how

could we even consider an industrial complex of this magnitude. How sick do we have to get, and how many of these natural wilderness areas do we have to devour before we understand the consequences. How big the natural disaster before governments begin to make the right decisions based on the full knowledge that humans are only part of a great inter-connecting web and that what is done to one part is done to all. We are neither separate nor indestructible, and yet we seem destined to put it to the test. What needs to happen, and it needs to happen now, is that all North Americans need to reduce consumption. The consequences of not curtailing our excessive needs are disastrous to the entire planet where most of the world's population survive on a fraction of what we do. Where are the ethics in this? At a time when we have full knowledge of what our current and past practices with industry have done to this planet and an obvious and immediate solution is to use less, we are looking to build an LNG terminal that is not for use by Canadians at all, but only to further feed the insatiable appetites of our neighbours to the south. With intelligence and a strong commitment, Nova Scotia could become a model for

Canada and the world by taking this county and province in a new and necessary direction. Soon after the publication of Rachel Carson's book, individuals and groups began to work on alternative solutions to energy needs and, by now, though largely ignored by those who could make it a reality, these technologies exist. Here in Guysborough County we have the advantage of small communities continuing to sustain themselves in the ways they have for generations and that are respectful to the natural environment. There is potential for wind energy, an unspoiled wilderness that is perfectly geared to ecotourism, people who have moved here in order to pursue a lifestyle that is more appropriate for their health and that of the planet. What is needed is for governments, financial institutions, and local residents to focus on community based and sustainable economic development that are synergistic with the cultural heritage and the natural resources for the area. This way of living on the planet will be a reality and we can either choose it with wisdom and intelligence or it can be born of necessity. Communities of the future will be based on regional self reliance, and here is an opportunity.

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The danger with allowing any more of our natural resources to be swallowed up is that the damage is irreparable. If we allow the waters off the coast near Goldboro and all along that shore to be poisoned through this industry, then fishing and aquaculture will no longer be a viable option for future generations. If we erase the sweeping panoramas that tourists who travel this Marine Drive come to see, then we have diminished the very qualities that make this coastline valuable. Why would we do that in the interest of corporate stakeholders from other countries who care nothing about these communities? No amount of temporary jobs that may come from this is worth the permanent loss of the richness that this coastline offers, and the potential that it holds for generations to come. As far as I can tell from the information about this project is that there is much that is still vague and it would be a mistake to allow a project of this magnitude to begin without more questions answered. Many of these are outlined in the Ecology Action Centre's Environmental Impact Assessment, which I encourage anyone who has not done so to read. With so much at stake, there should be absolutely no room

for error and there is so much unexplained or unaccounted for. Once begun, Keltic would be free to proceed unimpeded. Who will be accountable for problems that arise or accidents that happen? Accidents are a risk here and what is in place for emergency response? Will the Volunteer Fire Department be required to handle accidents? Are people aware that an explosion could incinerate everything around for miles? Accountability, or lack thereof, in all aspects of government and large corporations is a reality we are often faced with. Regulations are difficult to monitor and enforce, and so are not a guarantee for public safety. I do not think Nova Scotians have been made fully aware of the extent of the impacts that would result from this project. Keltic has used the lure of jobs to gain residents' approval because that is what is needed in Guysborough County, but jobs -- these jobs will require a skilled labour force which may not be available. Nova Scotia faces a shortage of workers now. Many of them will be brought in from other parts of Canada but does this actually benefit the community around Goldboro? If the building stage is only two to three years, then people in that area

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will not be willing to open businesses for such a short term need, and meanwhile the quality of their lives are greatly diminished by the impacts that are implicit in this kind of project, both short term and long term. The lifespan of the plant is maybe 20, 30, 40 years. This is not long term. This isn't even a generation and meanwhile the damage is done, we don't get it back. Extinction is extinction. While higher populated areas of the east coast of the US and New Brunswick are organizing to oppose LNG, this small unpopulated area of Nova Scotia is being threatened, and opposition here is small. People are being told what they want to hear and it is in the interest of the company and its shareholders not the local people. Why weren't the local people around Goldboro and surrounding communities better informed when a project this life altering is planning on moving in and, in fact, has made many assumptions and changes already? Why has this project been so poorly covered by the media, and why are there no meetings in Halifax where the largest population base resides? This is not a good sign. Not only has there not been enough information put out to the public, but the truth of it has not been told.



There are very strong reasons why other parts of the world are opposing these terminals. Are we willing to be responsible for having made such a big mistake at this point in time? I will now refer to several quotations from an article that was published on November 13th, 2006. It demonstrates using mathematical and scientifically based facts on the already predictable path we walk by allowing an LNG terminal here in Nova Scotia. This is from a paper in Houston, Texas. The heading is "US LNG Imports Falling Fast Surprising Analyst: 2006 Currently Trending Below 2003":

"Just a couple of years ago, energy analysts predicted US liquified natural gas imports would rise sharply to fill a yawning gap between declining production and greater demand for gas-fired power. Cambridge Energy Research Associates, for one, predicted North America would `require about 11 billion cubic feet per day of LNG supply by 2010' an increase of ten-fold over current levels to roughly 15 percent of North America's gas consumption."

This prompted government leaders like the heralded Alan Greenspan, FED Chairman, to sound an alarm. In his July 2003 testimony before the US Senate's Energy Committee, Greenspan cautioned:

"Markets need to be able to effectively adjust to unexpected shortfalls in domestic supply. Access to world natural gas supplies will require a major expansion of LNG terminal input capacity, yet shortages of natural gas and higher US prices have not netted more cargoes. Since July 2004 the number of cargoes imported into the United States has fallen from a high of 28 to just 12 in March 2006. Some 17 were imported in August. Meanwhile, developers have expanded input capacity to more than 5.0 cubic feet per day, four times the level necessary. Adding current construction and planned expansions at existing terminals, capacity is likely to exceed 23 cubic feet per day by the year 2011, creating possibly a glut of terminal space like what occurred in the 1980s when LNG was expected to fill a large

portion of US demand."

So I know that there is -- we already have Bear River near Port Hawkesbury, I believe, that was begun and then closed down. So this is -- I think that this is something that we need to be aware of. If we are permanently to alter life on this coast, then we need to at least be looking at projects that utilize renewable energy, and do not contribute to global warming and are less dangerous and destructive to the natural environment and to the health of its residents. We need to have a comprehensive strategy that encompasses the entire coastline of Nova Scotia and will remain viable for future generations. Once again, why would we not choose to be a leader in a direction that considers healthy and long term growth in all aspects, especially in light of the fact that the industrial age will end. There is no alternative. I want to address my concerns for safety in regards to the huge tankers that will be manoeuvring their way through small channels and around islands in a very unpredictable Atlantic Ocean where fog is prevalent. There are also areas where rocks jut out of the ocean and which these tanks will need to avoid. Is it true

that these tankers require miles to stop, and a similar amount of space in which to turn around? It doesn't require too much imagination to see that this is a recipe for disaster. What will the other watercraft do if stuck out there during a storm and are unable to get around a floundering tanker? Who is accountable at sea? If LNG terminals are to be a reality in this world, then they obviously require large, unobstructed entrances to shore in order to operate without danger of accidents or leakages due to insufficient waterways. It is preposterous that we would worry about nuclear weapons on the other side of the world and then encourage this kind of thing in our back yard. Since these tankers will be travelling from all other parts of the world where regulations may be less stringent, I think we need to be concerned about the unknowns related to how these tankers may be maintained and operated. Keltic uses the phrase "We don't expect there to be cause for concern." Well, of course not. Since LNG terminals require such a huge infrastructure, why, if they are to be a reality, would they not be in place in areas where this kind of large infrastructure is already there? Why would the government of a

province that is known and visited for its pristine coastline risk the destruction, permanent destruction, of this, its very asset? Nova Scotia's come to depend a great deal on tourism. Why do people come to this province? People come here because like my move to raise children it is a bit like stepping back in time. As the world becomes more populated and less sane, there is great comfort in experiencing the simplicity of days gone by, even if all that is is a sunset on the beach for a family from Manhattan who never find time in their life, time and space in their life to enjoy this very simple moment, one that we who live here take for granted. What would be so special about this province if we begin to look and smell no different from the eastern seaboard of the US? What would be the incentive for people to journey the extra miles if what they find at the end of their long drive is more of the same? This particular coast is historical in that it holds Sherbrooke Village, a tourist destination depicting, once again, the memory of a time when life was more simple. There is the rich history of the Acadians, the Mi'kmaq and the Black Loyalists. Do you not think it would totally detract from this heritage

to have big industry billowing pollutants into the air and giant tankers manoeuvring offshore? As humans become more educated about the dangers of LNG, and I don't believe they are sufficiently educated yet, you will see less and less of them travelling anywhere near LNG sites. Tourism will suffer because the future in tourism will be about finding peace and serenity in a world out of control. You see it now in people who do more and more escape type of vacations. It is their chance to recharge their inner strength and spirit. Have you considered the small creative enterprises that have been looking toward this area that may be thwarted by this proposal? One could argue that the LNG, besides being a safety risk, isn't all that dirty, no smoke stacks emitting chemicals, but it is the industry that sprouts up all around this terminal that should be of huge concern to the people who live nearby, and to all the residents of Nova Scotia. The emissions that will be admitted into the atmosphere by a petrochemical plant are highly toxic to human health, and this in a province that already is famous for its highest rate of cancers and respiratory illness. How much of our tax dollars are going to be spent to address poor health?

How many children who are much more susceptible to these poisons will go through life with only marginal health? As each generation is raised with less resistance and weaker immune systems, we risk entire generations. There is not a thorough health risk assessment given on the impacts of the petrochemical facility and attached components. This needs to be done, and it needs to be done for multiple generations to come, and it needs to be made public to every resident of this province. The choice we make here affects an area much larger than Guysborough County. Our decision will affect climate change and therein lies the seriousness of this proposal. If people have not watched "An Inconvenient Truth" then it should become a priority. It is my opinion this film should be mandatory in all schools and for all levels of government. There are many more details, many of which have likely been mentioned numerous times. I understand that out of 112 points made in Keltic's proposal, 98 of those were listed as having adverse effects on the environment, and only 14 were cited as not. Keltic also labels these adverse effects as insignificant. That is contradictory and not

acceptable in both short term and long term adverse impacts that are not balanced out by the limited benefits that will remain in the province. Yes, employment should be addressed but not in saying yes to a Dutch/Russian company to further perpetuate the gross overconsumption of American society and to permanently alter the possibility for us to create meaningful and long term economic structures on our coastlines. Saying yes to this proposal will only set a precedent for more of the same. The quote in the front of Rachel Carson's book by Albert Schweitzer says:

"Man has lost the capacity to foresee and to forestall. He will end by destroying the earth."

I urge all of you who have not researched all the aspects and impacts of this proposal to do so. It is quite revealing to know who benefits the most from this project. If I have helped anyone today -- we can only make knowledgeable decisions when we have complete awareness of the facts, and if I have helped anyone today to broaden their vision or to dig a little deeper, or to enter into dialogue with themselves or others, then I've succeeded. I would like to thank all



MS. KATHI RYAN - PRESENTATION

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of those who've come out to oppose this project. There seems to be a lot of misunderstanding as to our intent, and between the animosity that we may feel and the hopelessness that can come with confronting both large corporations and supporting government, it can, by times, feel like an exercise in futility. Thank you.

THE CHAIR

Thank you very much. Are there any questions for Ms. Ryan? No?

MS. RYAN

Good.

THE CHAIR

Okay. Thank you very much for your presentation. We do have some time left for an open forum session, so at this point if anyone from the audience wants to raise a concern, ask a question, bring forward an issue, this would be the time. Yes, please?

OPEN FORUM

MR. LOCKERBY

Mr. Chair, I do have one question for Keltic and ---

THE CHAIR

Please for the record identify yourself.

MR. LOCKERBY

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Oh, I'm sorry. Wayne Lockerby, of East River Point in Lunenburg County. One question for Keltic, and I also wondered, given the time constraints before there was one matter that I had that I skipped over and I wondered if I might have an opportunity to go back and review that matter.

THE CHAIR

That's fine, Mr. Lockerby. This is the time for that.

MR. LOCKERBY

My question for Keltic, Mr. Chairman, is does Keltic own any land in Goldboro?

MR. DUNCAN

Currently they do not own any land, no.

MR. LOCKERBY

And what type of arrangement, then, does Keltic have to acquire land?

MR. DUNCAN

I believe their arrangement right now is that they've had discussions with the landowner which would be the municipality itself. They have acquired an option to purchase the property, but they don't currently own that property.

THE CHAIR

Mr. Lockerby, I'll give you a few minutes. I don't want to pre-empt any other questions that might come from the audience, but if you just want to make a statement and a short one, that's fine.

MR. LOCKERBY

Okay. Thank you. It's very brief and it's just a follow-up that I think is important in relation to National Energy Board hearings MH3 and MH4. And that was with respect to the nature of Hartland's rights. Legal counsel for both Sable and M&N pipelines made very vigorous and lengthy arguments to the National Energy Board as to the nature of mineral rights. I recall two or three of the issues which they put forward. One of them was suggesting that there was a case precedent set by what is known as the Coxheath Gold Holdings case, and what I would like to say to the panel is that the Coxheath Gold Holdings case was a case that related to royalties. It was not a case relating to mineral exploration licenses. And the question to be adjudicated in that case was whether a royalty is an interest in land or whether it is contractual in nature. And a royalty is very separate and distinct from a mineral exploration licence. A

second argument that was put forth had to do with the suggestion that a mineral exploration licence does not grant an interest or proprietary interest in land. Another argument that was proposed by legal counsel of those two major corporations was that mineral exploration licence holders who were affected did not have in place access permits at that particular time. And what I think is important for this panel to note is that notwithstanding -- and before that, because of that both parties argued that the National Energy Board should not convene a detailed route hearing. And I think it's important to note that in spite of all of those vigorous arguments, the National Energy Board was not at all persuaded that that was the case. They said, as I determined or I said before, that mineral exploration rights are rights which are distinct from surface ownership, they're distinct from mineral ownership, the minerals being owned by the Crown, and they are rights which must be addressed by companies who are involved in pipeline activities. So I thought that was important, Mr. Chairman, to note, because it seems to be a pretty standard refrain with major gas corporations that don't appear to want to address the

rights of mineral right holders and look for a way not to address them. Thank you.

THE CHAIR

Thank you. Anyone else who has any further questions or issues? I see one. Yes, please?

MR. MILLER

Good afternoon. My name is David Miller. I'm a business person in Antigonish and Port Hawkesbury. I operate three restaurants, and I employ approximately 100 people. I'm also a member of the Antigonish Chamber of Commerce, the Antigonish Area Partnership and the Port Hawkesbury Chamber of Commerce, and I'm a founding member of the Town of Antigonish Beautification Committee, which really is Downtown Economic Development and Sustainability Committee. And I've come here to express support for the project because of the economic impact that I think it will have on the broader eastern Nova Scotia community. I have -- as a member of the Antigonish Partnership, Mr. Brian Segal is going to make a presentation. Has he made that yet, do you know?

THE CHAIR

Mr. Segal?

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MR. MILLER

Mr. Segal. If he hasn't, he'll be making a more detailed presentation on the economic impact in his assessment in numerical terms.

THE CHAIR

We don't have him registered as an intervenor but he may ---

MR. MILLER

Right. I gather he had difficulty getting registered because he had to have approval from his board to make the presentation, and he couldn't get that -- he couldn't get the approval before your deadline, but I think he'll be here, and I wasn't sure whether he had come before me or not. He will be making a presentation that has a lot of detailed economic impact, so I'm not going to cover that. I wanted to cover the more general economic impact on the demography of the community and the infrastructure, existing infrastructure of the community. Specifically in the last number of months, this community has experienced a unprecedented outflow of able-bodied people to -- mostly to the Alberta area, and I've been -- I'm originally from Cape Breton but I've been living

in the Antigonish area for almost 20 years, and I've never seen such an outflow. Even in the case of Canso when the fish plant closed down there just wasn't as much of an outflow, but now able-bodied people are just upping and moving because they don't feel there's any potential for economic security for themselves. I know that that -- I was talking to a schoolteacher the other day and she said that in her class alone three kids have moved in one class. So, what typically happens is that -- I'm sure local people know this and I'm sort of, I guess, repeating it for the record. If you've heard this before -- a lot of you have made this presentation. Has this information come out, this kind of information come out yet?

THE CHAIR

Well, certainly in regard to out-migration and loss of people due to lack of economic opportunity, yes, but ---

MR. MILLER

Okay. Well, I don't mean to repeat stuff, but obviously what's happening is people are going away, and if there is an economic opportunity people will come back and it's sort of reasonably simple in those

terms. There's a lot of people who would like to come back to Eastern Nova Scotia but there's no economic opportunity and there's a declining economic base, declining in the sense -- that doesn't mean we're not growing but our rate of growth is decreasing. And I mentioned my involvement in the downtown. I walked along the main street today and there were three empty storefronts. I've been active for the last -- with a number of other people, for the last five or six years when it became obvious that big boxes were coming into the community to try to maintain and sustain the viability of our downtown as a core for people. And the point is that it's a tenuous situation and as more people go away and as there's less economic opportunity it gets more difficult, and you've seen some towns -- I don't need to talk about the New Waterfords of the world where Plummer Avenue is locally known as Plywood Avenue. I don't -- I'm not forecasting that in the immediate future, but my point is that this project is an economic opportunity of unprecedented size and stability as opposed to in Port Hawkesbury where the town built a call centre and 100 people or maybe 300 people are employed in the call centre and we've



recently heard that that call centre is going to close -- or not going to close, the people who have the contracts there are going to lay off all the people and move away and they'll probably find someone else. But once you build a facility of this size you don't close it down because world economic conditions are temporarily not very positive, and the kind of product that it's producing has a very positive economic outlook in the long term. So, I think that for this community the timing couldn't be better in the sense of we're lucky that there's an opportunity of this magnitude on our doorstep at this time, and I am, therefore, supporting the economic aspect of your environmental review that -- to note how important it is. Now, obviously the environmental part is a concern, but I have every reason that -- to believe that because you people are here there'll be appropriate environmental -- I don't know if "constraints" is the word but environmental control so that there's state-of-the-art technologies used and there is a minimization of any impact on the environment so that -- and I'm not really here to talk about that but it's the economic aspect in that we have

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all the infrastructure, we have the schools, we have the hospitals, we might need one or two more roads, but for the most part this community is ready for development because we have underutilized capacity in all our infrastructure. And going through infrastructure, I mean schools and I mean commercial infrastructure, and I don't see a big town site being built up in the Goldboro area, I see the Town of Antigonish and the Town of Port Hawkesbury being the main support units, and we're ready for the kind of development that's coming. So, I guess in sum, my position as a business person would be that -- to say that I strongly support this, the organizations and the people that I -- I obviously am not representing these organizations, as I mentioned, I'm representing myself, but I have the sense that the people -- there's a recognition among people who run businesses and people who work for businesses that there's a need for more economic impetus in this area, and I'm hoping very strongly that this project can go ahead and I'm sure it'll be a very positive impact on the community.

Thank you very much.

THE CHAIR

Okay. Thank you. Anyone else with a comment or a question? I don't want to cut you off. I know sometimes we have people who want to get up but don't do it until the last minute, so I just want to make sure. Anyone else who might want to have a comment, a question?

--- (No response)

THE CHAIR

Okay. Thank you very much, then. We will be reconvening tomorrow at 9 o'clock again for a session, and thanks very much.

(ADJOURNED TO FRIDAY, NOVEMBER 24, 2006 AT 9:00 A.M.)

## CERTIFICATE OF COURT REPORTERS

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Gwen Smith-Dockrill, CCR  
Sandra Adam, CCR  
Ruth Bigio, CCR  
Janine Seymour, CCR  
Lorrie Boylen, CCR

Friday, November 24, 2006 at Halifax, Nova Scotia