

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
**Bid Receiving Public Works and Government  
Services Canada/Réception des soumissions  
Travaux publics et Services gouvernementaux  
Canada**  
**Room 1650, 635 8th Ave. S.W.**  
**Calgary**  
**Alberta**  
**T2P 3M3**

**REQUEST FOR PROPOSAL**  
**DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

THIS DOCUMENT CONTAINS A SECURITY  
REQUIREMENT / DOCUMENT CONTIENT DES  
EXIGENCES RELATIVES À LA SÉCURITÉ

<b>Title - Sujet</b> Court Reporting Services	
<b>Solicitation No. - N° de l'invitation</b> 84084-130109/A	<b>Date</b> 2014-03-03
<b>Client Reference No. - N° de référence du client</b> NEB	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$CAL-097-6214	
<b>File No. - N° de dossier</b> CAL-3-36093 (097)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2014-03-25</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Mountain Daylight Saving Time MDT
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Levesque-Welch, Nicole	<b>Buyer Id - Id de l'acheteur</b> cal097
<b>Telephone No. - N° de téléphone</b> (403) 292-4716 ( )	<b>FAX No. - N° de FAX</b> (403) 292-5786
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> NATIONAL ENERGY BOARD 444-7 Ave SW CALGARY Alberta T2P0X8 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**


**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

<b>Delivery Required - Livraison exigée</b> See Herein	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

**Issuing Office - Bureau de distribution**

Public Works and Government Services Canada/Travaux  
publics et Services gouvernementaux Canada  
Room 1650, 635 8th Ave. S.W.  
Calgary  
Alberta  
T2P 3M3

<div>  <div> <div>Public Works and Government Services</div> <div>Canada</div> </div> </div>		Travaux publics et Services gouvernementaux Canada		Document No.84084-130109/A		Part - Partie 1 of - de 2		See Part 2 for Clauses and Conditions Voir Partie 2 pour Clauses et Conditions	
Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Unit Price/Prix unitaire FOB/FAM Destination Plant/Usine		Delivery Req. Livraison Req.	Del. Offered Liv. offerte
1	Court Reporting Services Court Reporting Services	84084	84084	1	Lot	\$	XXXXXXXXXXXX	See Herein	

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84084-130109/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

cal097

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NEB

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CAL-3-36093

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Annex "A"	Statement of Work
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## PART 1 - GENERAL INFORMATION

### 1. Introduction

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 Security Requirement: includes specific requirements that must be addressed by bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Statement of Work, the Basis of Payment, the Security Requirements Checklist, the Task Authorization Form 572 and any other annexes.

### 2. Summary

For the provision of Verbatim Reporting Services (VRS) to the National Energy Board (NEB or the Board), in Calgary, Alberta and at other Canadian locations, as required during the period of the contract. The Contract will be in effect from date of award for a period of two years.

The Contractor or VRS Provider must be qualified to provide a complete and accurate verbatim reporting series of official transcripts at hearings of the Board and related conferences in one of the official languages (see Appendix I-A for background information). The Contractor will also be required to provide the transcript in electronic form and multiple corresponding transcript paper copies in printed and bound form within the required time frames.

There is a security requirement associated with this requirement. For additional information, consult Part 6 - Security Requirement, and Part 7 - Resulting Contract Clauses. Bidders should consult the "[Security Requirements for PWGSC Bid Solicitations - Instructions for Bidders](http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31)" (<http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31>) document on the [Departmental Standard Procurement Documents](#) website.

Bidders must provide a list of names, or other related information as needed, pursuant to section 01 of Standard Instructions 2003.

For services requirements, Bidders in receipt of a pension or a lump sum payment must provide the required information as detailed in article 3 of Part 2 of the bid solicitation.

The requirement is subject to a preference for Canadian goods and/or services.

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CAL-3-36093

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There is a Federal Contractors Program (FCP) for employment equity requirement associated with this procurement; see Part 5 - Certifications, Part 7 - Resulting Contract Clauses and the annex named Federal Contractors Program for Employment Equity - Certification.

### **3. Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## PART 2 - BIDDER INSTRUCTIONS

### 1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2014-03-01) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: sixty (60) days

Insert: one hundred and eighty (180) days

### 2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

### 3. Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPS, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

#### Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the *Financial Administration Act*, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of

various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the Public Service Superannuation Act (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the Supplementary Retirement Benefits Act, R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the Canadian Forces Superannuation Act, R.S., 1985, c.C-17, the Defence Services Pension Continuation Act, 1970, c.D-3, the Royal Canadian Mounted Police Pension Continuation Act, 1970, c.R-10, and the Royal Canadian Mounted Police Superannuation Act, R.S., 1985, c.R-11, the Members of Parliament Retiring Allowances Act, R.S., 1985, c.M-5, and that portion of pension payable to the Canada Pension Plan Act, R.S., 1985, c.C-8.

### **Former Public Servant in Receipt of a Pension**

As per the above definitions, is the Bidder a FPS in receipt of a pension? Yes ( ) No ( )

If so, the Bidder must provide the following information, for all FPS in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

### **Work Force Adjustment Directive**

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? Yes ( ) No ( )

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

## **4. Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to



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enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

## **5. Applicable Laws**

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Alberta.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

## **6. Improvement of Requirement During Solicitation Period**

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least five (5) days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

## PART 3 - BID PREPARATION INSTRUCTIONS

### 1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (3 hard copies)

Section II: Financial Bid (1 hard copy)

Section III: Certifications (1 hard copy)

Section IV: Additional Information (1 hard copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html)

(<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

#### Section I: Technical Bid

In their technical bid, bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

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**Section II: Financial Bid**

Bidders must submit their financial bid in accordance with the Basis of Payment in Annex "B". The total amount of Applicable Taxes must be shown separately.

**1.1 Exchange Rate Fluctuation**

C3011T (2013-11-06), Exchange Rate Fluctuation

**Section III: Certifications**

Bidders must submit the certifications required under Part 5.

**Section IV: Additional Information****1.1 Bidder's Proposed Site or Premises Requiring Safeguard Measures**

As indicated in Part 6 under Security Requirement, the Bidder must provide the required information below, on the Bidder's proposed site or premises for which safeguard measures are required for Work Performance.

**Address:**

\_\_\_\_\_  
Street Number / Street Name, Unit / Suite / Apartment Number

\_\_\_\_\_  
City, Province, Territory / State

\_\_\_\_\_  
Postal Code / Zip Code

\_\_\_\_\_  
Country

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **1. Evaluation Procedures**

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.
- (c) The evaluation team will determine first if there are three (3) or more bids with a valid Canadian Content certification. In that event, the evaluation process will be limited to the bids with the certification; otherwise, all bids will be evaluated. If some of the bids with a valid certification are declared non-responsive, or are withdrawn, and less than three responsive bids with a valid certification remain, the evaluation will continue among those bids with a valid certification. If all bids with a valid certification are subsequently declared non-responsive, or are withdrawn, then all the other bids received will be evaluated.

### **1.1 Technical Evaluation**

#### **1.1.1 Mandatory Technical Criteria**

The bidder's submission must include:

- 1. Detailed and updated resumes for at least five (5) reporters to determine that each of the proposed personnel:
  - a. Has a minimum of thirty-six (36) months of court reporting experience since January 1, 2008 using proven court reporting techniques.

### 1.1.2 Point Rated Technical Criteria

Bidders must achieve a minimum passing mark of 60% in each of these criteria, except for criteria 6, in order to be deemed responsive.

Proposals must be concise and must address the criteria listed below, against which each proposal will be evaluated. Items not addressed will be given a score of zero.

#### Criteria:

1. The bidder clearly demonstrates that its "Operations Manager" possesses experience in conducting similar work as described within the solicitation document. Must provide a description of at least two (2) projects demonstrating that they are comparable in nature:

The bidder clearly demonstrates the following experience:

- a) Length of assignment;
- b) Technical complexity (number of simultaneous hearings, short production time limits, electronic document transfer);
- c) Coordinating staff, production and delivery; and
- d) Quality control.

and

The bidder clearly demonstrates the following accessibility:

- e) Accessibility of Operations' Manager at all times;
- f) Ability to make decisions on behalf of the company, and at what level of authority;
- g) Physical location of the Operations Manager; and
- h) Length of time to respond to requests from the Technical Authority, including the possibility of working from a distance from the site of the hearing.

**50 points, minimum required = 30 points**

2. The bidder clearly demonstrates that the reporters who meet the mandatory requirements have experience with:

- a) Transcribing hearings for matters not related to energy, economy, safety and environment (10 points);
- b) Transcribing technical matters related to energy, economy, safety and environment in English or French (36 points);
- c) Transcribing technical matters, as outlined above under b), at bilingual hearings (English and French) (60 points).

**60 points, minimum required = 36 points**

3. With respect to "Corporate Capability", the bidder:

- a) demonstrate access to back-up resources in the event of sickness, etc.;
- b) provide a description of the criteria used when screening employment applications, and how such criteria are applied;
- c) provide a description of any subcontracting plans including access to reporters capable of working in French; and
- d) provide an outline of proposed procedures to manage the service, including quality control procedures, relevant forms or check lists used in-house (if any), etc.

**30 points, minimum required = 18 points**

4. With respect to equipment, the bidder's proposal identifies a plan on how they will provide all equipment, suppliers and operators, including high speed printing and binding facilities, necessary in the event simultaneous hearings are conducted (for example: one at the Board's offices and one in another city). The plan should:

- a) identify potential difficulties;
- b) discuss potential solutions with the Board representative;
- c) provide details; and
- d) be logical.

**30 points, minimum required = 18 points**

5. Bidder provided two references (contact name & telephone number) of companies to whom they have provided similar court reporting services. The references should demonstrate:

- a) overall quality of transcript service provided; and
- b) quality of customer service relations.

**20 points, minimum required = 12 points**

6. With respect to locations of hearings, bidder indicated which cities other than those identified in section 4.0 of the Statement of Work that they are capable of providing services without cost of travel to the NEB.

- a) 1 additional location (2 points)
- b) 2 additional locations (4 points)
- c) 3 or more additional locations (6 points)
- d) All additional locations (10 points)

**Maximum of 10 points, no minimum points required for this criterion**

**Total Points Available = 200**

**Minimum Points Required Overall = 114**

## 1.2 Financial Evaluation

### 1.2.1 Mandatory Financial Criteria

Total evaluated price will be calculated in the manner described below. Quantities identified within the scenario are for evaluation purposes only and will not form part of any resulting contract.

The bid evaluation will be based on the following scenario and the quoted price proposed under Annex "B" - Basis of Payment.

#### Scenario:

On March 31st, National Energy Board (NEB) sends the Contractor a Task Authorization to perform Verbatim Reporting Services.

The hearing is scheduled from April 7th to April 25th (15 business days) and will be held in Calgary. It is estimated that 40,000 words will be typed on a daily basis during the hearing in the English language.

During this period, a request was received for an additional hard copy (printed) and one CD Rom from another party for each day of the hearing. It is estimated that a printed copy consist of 150 pages. In addition to this request, the party requested that the Contractor provide an Audio CD of each day of the proceeding.

On April 14th, the Contractor received a notice from NEB that the hearing will be closing on April 16th.

During the proceeding period, two recesses occurred with less than two hours of work each day.

#### Calculation:

- i. 40,000 words x 8 business days x the quoted price under A.1.1.; plus
- ii. 150 pages x 8 days x the quoted price under A.1.3.a.; plus
- iii. 8 days x the quoted price under A.1.3.b.; plus
- iv. 8 days x the quoted price under A.2.0; plus
- v. The cancellation fee option chosen by the bidder under 6.0; plus
- vi. The recess fee option chosen by the bidder under 7.0; equals

The total evaluated price for the contract period.

Calculation will be applied to each year of pricing and all periods will be totalled to determine the total evaluated aggregate bid price of the Proposal.

*SACC Manual Clause A0222T (2013-04-25), Evaluation of Price*

**2. Basis of Selection - Highest Combined Rating of Technical Merit and Price**  
(A0027T, 2012-07-16)

1. To be declared responsive, a bid must:

- a. comply with all the requirements of the bid solicitation; and
- b. meet all mandatory criteria; and
- c. obtain the required minimum points specified for criteria numbers 1, 2, 3, 4 and 5 for the technical evaluation, and
- d. obtain the required minimum of 114 points overall for the technical evaluation criteria which are subject to point rating.

The rating is performed on a scale of 200 points.

2. Bids not meeting (a) or (b) or (c) and (d) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 60% for the technical merit and 40% for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 60%.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 40%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 60/40 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000 (45).



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NEB

CAL-3-36093

**Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)**

		Bidder 1	Bidder 2	Bidder 3
Overall Technical Score		115/135	89/135	92/135
Bid Evaluated Price		\$55,000.00	\$50,000.00	\$45,000.00
Calculations	Technical Merit Score	$115/135 \times 60 = 51.11$	$89/135 \times 60 = 39.56$	$92/135 \times 60 = 40.89$
	Pricing Score	$45/55 \times 40 = 32.73$	$45/50 \times 40 = 36.00$	$45/45 \times 40 = 40.00$
Combined Rating		83.84	75.56	80.89
Overall Rating		1st	3rd	2nd

## PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and documentation to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default, if any certification made by the Bidder is found to be untrue whether during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with this request will also render the bid non-responsive or will constitute a default under the Contract.

### 1. Mandatory Certifications Required Precedent to Contract Award

#### 1.1 Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions 2003. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

#### 1.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from [Human Resources and Skills Development Canada \(HRSDC\)](#) - [Labour's website](#).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex [Federal Contractors Program for Employment Equity - Certification](#), before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex [Federal Contractors Program for Employment Equity - Certification](#), for each member of the Joint Venture.

## 2. Additional Certifications Precedent to Contract Award

The certifications listed below should be completed and submitted with the bid but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.

### 2.1 Canadian Content Certification

*SACC Manual* clause A3050T (2010-01-11), Canadian Content Definition

### 2.2 Canadian Content Certification

(A3066T, 2010-01-11)

This procurement is conditionally limited to Canadian services.

Subject to the evaluation procedures contained in the bid solicitation, bidders acknowledge that only bids with a certification that the services offered are Canadian services, as defined in clause A3050T, may be considered.

Failure to provide this certification completed with the bid will result in the services offered being treated as non-Canadian services.

The Bidder certifies that:

( ) the services offered are Canadian services as defined in paragraph 4 of clause A3050T.

For more information on how to determine the Canadian content for a mix of goods, a mix of services or a mix of goods and services, consult Annex 3.6.(9), Example 2, of the Supply Manual.

### 2.3 Status and Availability of Resources

(A3005T, 2010-08-16)

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

## **PART 6 - SECURITY REQUIREMENT**

### **1. Security Requirement**

1. Before award of a contract, the following conditions must be met:
  - (a) the Bidder must hold a valid organization security clearance as indicated in Part 7 - Resulting Contract Clauses;
  - (b) the Bidder's proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirement as indicated in Part 7 - Resulting Contract Clauses;
  - (c) the Bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites;
  - (d) the Bidder's proposed location of work performance or document safeguarding must meet the security requirement as indicated in Part 7 - Resulting Contract Clauses;
  - (e) the Bidder must provide the address(es) of proposed location(s) of work performance or document safeguarding as indicated in Part 3 - Section IV Additional Information.
2. Bidders are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful bidder to obtain the required clearance will be at the entire discretion of the Contracting Authority.
3. For additional information on security requirements, bidders should consult the "Security Requirements for PWGSC Bid Solicitations - Instructions for Bidders" (<http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31>) document on the Departmental Standard Procurement Documents website.

## PART 7 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

### 1. Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A".

#### 1.1 Task Authorization

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

##### 1.1.1 Task Authorization Process

(B9054C, 2011-05-16)

##### Task Authorization:

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

##### Task Authorization Process:

1. The Technical Authority will provide the Contractor with a description of the task using the Task Authorization form specified in Annex E.
2. The Task Authorization (TA) will contain the details of the activities to be performed, a description of the deliverables, and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The TA will also include the applicable basis(bases) and methods of payment as specified in the Contract.
3. The Contractor must provide the Technical Authority, within five (5) calendar days of its receipt, the proposed total estimated cost for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract.
4. The Contractor must not commence work until a TA authorized by the Technical Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a TA has been received will be done at the Contractor's own risk.

##### 1.1.2 Task Authorization Limit

(C9011C, 2013-04-25)

The Technical" Authority may authorize individual task authorizations up to a limit of \$400,000.00, Applicable Taxes included, inclusive of any revisions.

Any task authorization to be issued in excess of that limit must be authorized by the Contracting Authority before issuance.

### 1.1.3 Minimum Work Guarantee - All the Work - Task Authorizations (B9030C, 2011-05-16)

#### 1. In this clause,

"Maximum Contract Value" means the amount specified in the "Limitation of Expenditure" clause set out in the Contract; and

"Minimum Contract Value" means 10% of the Maximum Contract Value.

2. Canada's obligation under the Contract is to request Work in the amount of the Minimum Contract Value or, at Canada's option, to pay the Contractor at the end of the Contract in accordance with paragraph 3. In consideration of such obligation, the Contractor agrees to stand in readiness throughout the Contract period to perform the Work described in the Contract. Canada's maximum liability for work performed under the Contract must not exceed the Maximum Contract Value, unless an increase is authorized in writing by the Contracting Authority.
3. In the event that Canada does not request work in the amount of the Minimum Contract Value during the period of the Contract, Canada must pay the Contractor the difference between the Minimum Contract Value and the total cost of the Work requested.
4. Canada will have no obligation to the Contractor under this clause if Canada terminates the Contract in whole or in part for default.

### 1.1.4 Periodic Usage Reports - Contracts with Task Authorizations

The Contractor must compile and maintain records on its provision of services to the federal government under authorized Task Authorizations issued under the Contract.

The Contractor must provide this data in accordance with the reporting requirements detailed below or in Annex "F". If some data is not available, the reason must be indicated. If services are not provided during a given period, the Contractor must still provide a "nil" report.

The data must be submitted on a quarterly basis to the Contracting Authority.

The quarterly periods are defined as follows:

1st quarter: April 1 to June 30;

2nd quarter: July 1 to September 30;

3rd quarter: October 1 to December 31; and

4th quarter: January 1 to March 31.

The data must be submitted to the Contracting Authority no later than fifteen (15) calendar days after the end of the reporting period.

### Reporting Requirement- Details

A detailed and current record of all authorized tasks must be kept for each contract with a task authorization process. This record must contain:

**For each authorized task:**

- i. the authorized task number or task revision number(s);
- ii. a title or a brief description of each authorized task;
- iii. the total estimated cost specified in the authorized Task Authorization (TA) of each task, exclusive of Applicable Taxes;
- iv. the total amount, exclusive of Applicable Taxes, expended to date against each authorized task;
- v. the start and completion date for each authorized task; and
- vi. the active status of each authorized task, as applicable.

**For all authorized tasks:**

- i. the amount (exclusive of Applicable Taxes) specified in the contract (as last amended, as applicable) as Canada's total liability to the contractor for all authorized TAs; and
- ii. the total amount, exclusive of Applicable Taxes, expended to date against all authorized TAs.

**2. Standard Clauses and Conditions**

All clauses and conditions identified in the Contract by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

**2.1 General Conditions**

2010B (2013-06-27), General Conditions - Professional Services (Medium Complexity), apply to and form part of the Contract.

**3. Security Requirement**

The following security requirement (SRCL and related clauses) applies and form part of the Contract.

**3.1 SECURITY REQUIREMENT FOR CANADIAN SUPPLIER:**

1. The Contractor must, at all times during the performance of the Contract, hold a valid Designated Organization Screening (DOS) with approved: Document Safeguarding at the level of PROTECTED B.
2. The Contractor personnel requiring access to PROTECTED information, assets or work site(s) must EACH hold a valid RELIABILITY STATUS, granted or approved by the Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC).
3. The Contractor MUST NOT utilize its Information Technology systems to electronically process, produce or store PROTECTED information until the CISD/PWGSC has issued written approval. After approval has been granted or approved, these tasks may be performed at the level of PROTECTED B.
4. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of CISD/PWGSC.
5. The Contractor/Offeror must comply with the provisions of the:

- 
- (a) Security Requirements Check List and security guide (if applicable), attached at Annex "C";  
(b) Industrial Security Manual (Latest Edition)

### **3.2 Contractor's Site or Premises Requiring Safeguard Measures**

The Contractor must diligently maintain up-to-date, the information related to the Contractor's site or premises, where safeguard measures are required in the performance of the Work, for the following addresses:

Address:

Street Number / Street Name, Unit / Suite / Apartment Number

City, Province, Territory / State

Postal Code / Zip Code

Country

## **4. Term of Contract**

### **4.1 Period of the Contract**

The period of the Contract is from date of Contract to TBD inclusive (for a period of 2 years).

## **5. Authorities**

### **5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Nicole Levesque-Welch

Supply Specialist

Telephone: 403-292-4716

Facsimile: 403-292-5786

Email: nicole.levesque-welch@pwgsc-tpsgc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### **5.2 Procurement Authority**

The Procurement Authority for the Contract is:

**\*\*\*To be determined at contract award\*\*\***

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.



### 5.3 Technical Authority

The Technical Authority for the Contract is:

**\*\*\*To be determined at contract award\*\*\***

The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

### 5.4 Contractor's Representative (To be completed by bidder)

Name \_\_\_\_\_

Title \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

### 6. Proactive Disclosure of Contracts with Former Public Servants (if applicable)

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

### 7. Payment

#### 7.1 Basis of Payment - Limitation of Expenditure - Task Authorizations (C0204C, 2013-04-25)

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work specified in the authorized Task Authorization (TA), as determined in accordance with the Basis of Payment in Annex "B", to the limitation of expenditure specified in the authorized TA.

Canada's liability to the Contractor under the authorized TA must not exceed the limitation of expenditure specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.

No increase in the liability of Canada or in the price of the Work specified in the authorized TA resulting from any design changes, modifications or interpretations of the Work will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been authorized, in writing, by the Contracting Authority before their incorporation into the Work.

#### 7.2 Limitation of Expenditure - Cumulative Total of all Task Authorizations

1. Canada's total liability to the Contractor under the Contract for all authorized Task Authorizations (TAs), inclusive of any revisions, must not exceed the sum of \$TBD at contract award. Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada will be authorized or paid to the Contractor unless an increase has been approved, in writing, by the Contracting Authority.
3. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
  - a. when it is 75 percent committed, or
  - b. four (4) months before the contract expiry date, or
  - c. as soon as the Contractor considers that the sum is inadequate for the completion of the Work required in all authorized TAs, inclusive of any revisions,

whichever comes first.
4. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority, a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

### 7.3 **SACC Manual Clauses**

C0705C	Discretionary Audit	2010-01-11
C2000C	Taxes - Foreign-based Contractor	2007-11-30
C2604C	Customs Duties, Excise Taxes and Applicable Taxes	2013-04-25
	Non-resident	
H1008C	Monthly Payment	2008-05-12

## 8. **Invoicing Instructions**

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Each invoice must specifically refer to:

- a. The task authorization number;
2. Invoices must be distributed as follows:
  - a. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

## 9. **Certifications**

### 9.1 **Compliance**

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or

unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

## 9.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and HRSDC-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "FCP Limited Eligibility to Bid" list. The imposition of such a sanction by HRSDC will constitute the Contractor in default as per the terms of the Contract.

## 9.3 SACC Manual Clauses

A3060C

Canadian Content Certification

2008-05-12

## 10. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Alberta.

## 11. Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the general conditions 2010B (2013-06-27), Professional Services (Medium Complexity);
- (c) Annex "A", Statement of Work;
- (d) Annex "B", Basis of Payment;
- (e) Annex "C", Security Requirements Check List;
- (f) Annex "D", Federal Contractors Program for Employment Equity - Certification;
- (g) Annex "E", PWGSC-TPSGC 572 Task Authorization Form
- (h) the Contractor's bid dated TBD.

## 12. SACC Manual Clauses

A7017C

Replacement of Specific Individuals

2008-05-12

A9039C

Salvage

2008-05-12

A9068C

Government Site Regulations

2010-01-11

G1005C

Insurance

2008-05-12

**ANNEX "A"****STATEMENT OF WORK****1.0 VERBATIM REPORTING SERVICES****2.0 OVERVIEW**

For the provision of Verbatim Reporting Services (VRS) to the National Energy Board (NEB or the Board), in Calgary, Alberta and at other Canadian locations, as required during the period of the contract. The Contract will be in effect from date of award for a period of two years.

The Contractor or VRS Provider must be qualified to provide a complete and accurate verbatim reporting series of official transcripts at hearings of the Board and related conferences in one of the official languages (see Appendix I-A for background information). The Contractor will also be required to provide the transcript in electronic form and multiple corresponding transcript paper copies in printed and bound form within the required time frames.

The National Energy Board, Secretary of the Board, or a delegated member of the Regulatory Services Team (see Appendix I-A, paragraph 2.0) is defined as the Technical Authority.

**2.1 DETAILED DESCRIPTION OF SERVICE REQUIREMENTS**

The Contractor/VRS provider must:

- a. Transcribe all proceedings accurately in the layout and style specified by the Board (see sample under Annex "G");
- b. Submit an accurate PDF rendition of the transcript to the Board using electronic filing and the online form (found on the NEB website <http://www.neb-one.gc.ca/clf-nsi/index.html>) within five (5) hours of the close of each day's proceedings. Instructions on how to e-file are provided under the Filer's Guide, referenced in article 4.1;
- c. Deliver to the Board before 7:00 am the day following the close of each day's proceedings, fifteen (15) bound printed copies of the transcripts, and provide the electronic versions in MS Word, ASC II, or as otherwise agreed to by the officiating Regulatory Officer on site;
- d. At the Board's request, the Contractor must be capable of providing one hard copy of the transcript to each intervenor and the applicant before 7:00am of the day following the close of each day's proceedings;
- e. Provide the Board with a signed copy of the electronic submission receipt and paper renditions of the transcripts within three (3) days following the close of each day's proceedings;
- f. Be capable of providing one CD-ROM copy (with Word, ASC II and PDF versions) to any party who requests it within three (3) days of the close of each day's proceedings;
- g. Provide additional paper or electronic copies of the transcript to the Board and to those parties requesting them, in the quantities, format and time frame requested;
- h. Create and keep an audio recording on CD-ROM, of the proceedings for six (6) months following the hearing;

- 
- i. Provide the Board, upon request and at no additional cost, an audio recording in a CD-ROM format of the daily proceedings;
  - j. Label CD-ROMs in a similar manner as hard copies of the transcript;
  - k. Allow the Board access to any database of its transcripts that may be constructed or maintained by the Contractor;
  - l. Be capable of providing the above VR services at various locations throughout Canada;
  - m. Be present and ready to begin work at the sitting at least thirty (30) minutes prior to the commencement of the said sitting;
  - n. Be capable of providing the above services where more than one Board hearing is occurring at one time;
  - o. Provide the Technical Authority with a list of names of the court reporters;
  - p. Dress conservatively and in a manner that enhances the professional image of a quasi-judicial tribunal; and
  - q. Be capable of providing the above services to hearings in English, and when required, in French, at bilingual hearings.

### **3.0 HEARINGS**

#### **3.1 LOCATIONS**

Hearings may be held at the Board's second floor Hearing Room at 444-7 Avenue SW, Calgary, Alberta (until June 2014) or at Centre 10, 517 – 10 Avenue SW, Calgary, Alberta (after June 2014), but could be held elsewhere in Calgary, or various locations, including rural locations, throughout Canada. The Contractor must have the resources available to provide the necessary services for multiple, simultaneous hearings to be held at different locations within Canada. The Board may also request the Contractor to transcribe certain conferences or other proceedings from time to time, all generally termed as "hearings" for the purpose of this requirement. See paragraph 3.3 for possible locations of hearings.

#### **3.2 PERSONNEL**

The Board requires that the Contractor's personnel, including the Operations Manager, will be on-site for each hearing.

#### **3.3 TRAVEL**

3.3.1 The Board will not incur any travel costs if a hearing is required at the following locations:

Halifax, Saint John, Fredericton, St. John's, Charlottetown, Montréal, Québec City, National Capital Region (Ottawa, Gatineau); Greater Toronto Area\*; Winnipeg, Regina, Calgary, Edmonton, Vancouver, Victoria.

*\*For the purpose of this Contract, GTA is to be interpreted as meaning the City of Toronto, and the Regional Municipalities of York, Halton, Peel and Durham.*

3.3.2 If the Contractor is able to provide “nil” travel costs to any other location in Canada, please indicate under Annex “B” – Basis of Payment.

3.3.3 For all other locations not identified in 3.3.1 and 3.3.2, the Board will reimburse actual travel, including airfare, and living expenses incurred while performing VRS services. Meals, incidentals and private vehicle mileage are not to exceed the rates given in the Treasury Board Travel Directive in effect at the time of travel and can be found at:  
[http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/tbm\\_113/menu-travel-voyage-eng.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/tbm_113/menu-travel-voyage-eng.asp).

All travel arrangements must be consistent with the provisions of this directive.

### 3.4 DURATION

Sitting days typically run from 8:30 a.m. to 1:00 p.m. Monday through Friday. However, this could vary from one to ten hours in length, and may include some evening and/or weekends. The Board may sit for longer hours than scheduled at any time and on short notice. The length of an entire proceeding can vary considerably. Please see Annex “H” for historical information on hearing frequency, location and duration.

### 3.5 CONTENT

The subject matter of the hearings is often quite complex in terms of the financial, legal and technical language used (usually related to energy, economic, safety and environmental matters).

### 3.6 LANGUAGE

The NEB is required to hear parties or witnesses in their choice of either of the official languages, English and/or French. The Board will provide notice of this requirement to the Contractor. The transcripts must only reflect the official language in which the evidence is presented. If evidence is given in a language other than an official language, the transcript must include only the official language into which the interpreter appointed by or recognized by the Board translates such evidence.

### 3.7 SECURITY REQUIREMENTS FOR CONFIDENTIAL MATERIALS (*In-camera* hearings)

The Contractor must strictly observe these instructions for protection of documents and work. The Contractor will provide a complete and accurate list to the officiating Regulatory Officer for approval of all counsel requesting classified or protected portions of the transcripts. Updates to the list will be provided to the officiating Regulatory Officer should any addition or cancellation occur after the first day of the hearing.

Classified or protected portions of recordings and transcripts must be prepared by the Contractor only for the Technical Authority and for counsel of record that appeared at the particular *in-camera* hearing (applicant and intervenor in some cases). All Board copies are to be hand-delivered by the Contractor to the officiating Regulatory officer before the resumption of the hearing on the day following the in-camera hearing, or as otherwise specified. All counsel copies are to be delivered by hand or by other secured method of delivery to a location and time as agreed upon with counsel, with notice to the officiating Regulatory Officer, at the Contractor's expense.

Except as provided in the above paragraphs, classified or protected portions of recordings and transcripts are not to be supplied or remitted to anyone without the prior, written approval of the Technical Authority.

## **4.0 TRANSCRIPT SERVICES/PRODUCTS**

It is of the utmost importance that the official hard copy and the PDF electronic version of the transcript are accurate and identical for daily and historical research purposes.

### **4.1 ELECTRONIC DATA**

The Contractor is required to submit accurate electronic rendition of the transcript in PDF format to the Board using electronic filing and the online form within give (5) hours of the close of each day's proceedings, and as set out in the Filers' Guide. Please refer to the Filers' Guide for further information (available on the Board's website at:

[http://www.neb-one.gc.ca/efile/guide\\_e.pdf](http://www.neb-one.gc.ca/efile/guide_e.pdf) (English) or  
[http://www.neb-one.gc.ca/efile/guide\\_f.pdf](http://www.neb-one.gc.ca/efile/guide_f.pdf) (French).

In addition, the electronic Word and ASCII versions must be sent by e-mail to designated staff within (5) hours of the close of the day's proceedings. Note: The paper copy of the transcript must correspond exactly to the PDF electronic transcript.

An electronic receipt of submission will be e-mailed to the Contractor as proof of filing. This receipt must be printed, signed and sent to the Board within three (3) days of the close of each day's proceedings, or as specified by the Board.

To submit the transcript files to the Board, the Contractor will be required to have Internet connectivity and an Internet browser that can support cookies, java and 128-bit encryption under secure socket layer (SSL). Please refer to the Filers' Guide for configuration information (available on the Board's website at [http://www.neb-one.gc.ca/efile/guide\\_e.pdf](http://www.neb-one.gc.ca/efile/guide_e.pdf) (English) or [http://www.neb-one.gc.ca/efile/guide\\_f.pdf](http://www.neb-one.gc.ca/efile/guide_f.pdf) (French)).

The Contractor is responsible for the successful submission of the documents as set out in the Filers' Guide.

### **4.2 LAYOUT AND STYLE**

In consultation with the Contractor, the Board reserves the right to make adjustments from time to time to the format and appearance of the hard copy transcript documents. For the purpose of this requirement, each printed transcript page is to be on 20 lb. white bond paper, 85 cm by 60 cm (8 ½ by 11 in.) and must contain no fewer than 30 typewritten lines, excluding 'shoulder notes' at the top of the page, nor fewer than approximately 300 words. The transcripts must be printed on both sides of each page. The Board reserves the right to determine the design and color of the cover. For example of hard copy see Annex "G".

Paragraph numbering will be required on both the hard copy and the electronic copy in order for these copies to correspond exactly. For example, see Annex "G".

### **4.3 BASIC NUMBER OF HARD COPIES FOR THE BOARD**

The Board requires one (1) "Official Printed Copy" and fourteen (14) additional copies, for the total of fifteen (15) copies, printed and bound and delivered by 7:00 am the day following the close of each day's sitting.

### **4.4 COPIES FOR PARTIES**

At the request of the board, the Contactor must be capable of providing one hard copy of each day's transcript to each intervenor and the applicant by 7:00 am the day following the close of each day's proceedings. The number of intervenors varies from case to case, but the Contractor will be notified within a reasonable time period of the approximate number of copies required. As an alternative to the hard copy of the transcript, the Contractor must also be capable of providing a CD-ROM of the PDF version of the previous day's transcript to any party who request it, at no cost, by 7:00 am the day following the close of each day's proceedings.

Any additional hard or electronic copies required by applicant(s), intervenor(s) and other parties must be produced in the quantities, format and time frame requested. The rate charged for the additional copies will be at the prescribed rates set out in the Basis of Payment (Annex "B"). The Board cannot estimate nor guarantee the numbers of copies that may be requested.

#### **4.5 AUDIO RECORDING**

The Contractor will be required to create an audio recording in electronic format (such as CD/DVD, flash drive or other external drive) of the proceedings, which is of sufficient quality to enable a full re-creation of the transcript, if deemed necessary. The Contractor must keep the recording for a period of at least 6 (six) months following the completion of the Hearing.

#### **4.6 QUALITY**

The accuracy and clarity of transcript material is of the highest importance to the Board. The Board is always the final arbiter of transcript quality issues. Any inability to deliver satisfactory quality service and/or transcripts could result in termination of the contract.

#### **5.0 COPYRIGHT AND REPRODUCTION RIGHTS**

Copyright must vest in and remain the property of Canada, and all copies must contain the following copyright notice:

©Her Majesty the Queen in Right of Canada as represented by the National Energy Board

#### **6.0 BOARD RESPONSIBILITIES**

##### **6.1 BOARD CONTACT**

The Technical Authority or his or her delegate will give all instructions related to the services provided on behalf of the Board.

During a hearing, further instructions relating to services may be provided by the officiating Regulatory Officer.

##### **6.2 FACILITIES**

During the hearing, the Board will provide, without charge to the Contractor, suitable office space, furniture and other facilities at the Board's offices. The Board will make reasonable efforts to do so at any other place in Canada, where the Board convenes a Hearing. The Board is also responsible for providing a sound system with a feed made available for the Contactor for all hearings.

##### **6.3 OPERATIONAL NOTICE**



While the Board is generally able to give reasonable notice of when hearings are to be held, it is the Board's experience that the hearing schedules could change on relatively short notice. The Board will give notice via e-mail or fax and the Contractor must promptly confirm all requests for VRS to the Technical Authority. The Contractor may charge a cancellation fee, as set out in the Basis of Payment, on those occasions when the Board provides a cancellation notice to the Contractor. See Section 6, Cancellation Fee in Basis of Payment, Annex "B".

## **7.0 REPORTS**

The Contractor must provide the Technical Authority with one copy of a post-hearing report identified the following information:

- Hearing Order number;
- Whether the hearing involved the use of English and/or French and/or language(s) other than either of the official languages; number of hearing days that required English and/or French and/or other language(s);
- Number of copies sold, broken down to indicate paper and electronic copies, first copies, and additional copies;
- Number of hearing days and number of sitting hours/day;
- Number of actual claimed "words" produced; (see Annex "B" – Basis of Payment, paragraph 1.2 for definition of "word").
- Number of pages sold; specifically, the number of pages of each day's transcript multiplied by the number of each day's transcripts sold and the number of copies distributed free of charge to the applicant, intervenors and to the Board;
- Number of audio recordings sold; and
- Location of the hearing.

## **8.0 ACCEPTANCE CRITERIA**

The work will be monitored regularly for adherence to the Statement of Work. Acceptance will be determined following examination and satisfactory completion and acceptance by the Technical Authority.

---

**BACKGROUND INFORMATION****APPENDIX I-A****1.0 BACKGROUND****1.1 ROLES AND RESPONSIBILITIES**

The National Energy Board was established in 1959 under the *National Energy Board Act* to advise the government on broad energy matters and to regulate specific matters concerning oil, gas and electricity in the public interest. The Board reports to Parliament through the Minister of Natural Resources Canada. In its role as a quasi-judicial tribunal, the Board has the power to hold inquiries into any aspect of energy matters under its jurisdiction and issues reports for the use and information of government, Parliament and the general public.

The Board regulates the tolls and tariffs of pipeline companies under Federal jurisdiction to ensure that tolls are just and reasonable and that there is no unjust discrimination. This involves consideration of the capital structure of a pipeline company and its operating and maintenance costs, as well as the necessity for an adequate return on investment.

The Board grants certificates to construct and operate interprovincial and international oil, gas and petroleum products pipelines, and international power lines. Before a certificate is issued, the Board must hold a public hearing to determine whether the proposed facilities are required by the present and future public convenience and necessity.

The Board is a Court of Record. In other words, the Board operates very similarly to a civil court and its powers include the swearing-in of witnesses, the subpoena of unwilling witnesses, and the taking of evidence, on which the Board makes its decision. The Board's deliberations are generally conducted on the basis of publicity filed, publicly available information. For major applications and inquiries, the Board generally holds public hearings at which an applicant and interested persons have full rights of participation in the official language of their choice. During an oral hearing, evidence (submissions, reports, tables, etc.) is discussed through cross-examination, and formal arguments are made. These activities are recorded in hearing transcripts. After the hearing, the Board writes a formal Decision or Report.

The evidence, both written and oral, is generally publicly filed and available in the Board's offices and on the NEB website. The NEB website provides immediate and free daily access via the Internet to the NEB staff, all Parties and the general public.

**2.0 PARTIES****Applicant(s):**

This party prepares evidence and/or arguments to support its application, which is then tested in the Hearing.

**Intervenors:**

Individuals or organizations other than an applicant that present evidence and/or arguments typically related to the area(s) of particular special interest.

**NEB Hearing Panel:**

One to five Board Members who listen to evidence and eventually prepare the official Decision or Report. It is most common for a panel of three Board Members to be assigned to decide on a given application.

**NEB Regulatory Officer:**

Staff within the NEB who arrange the logistics for hearings and supervise the administration of the hearing process. This is the usual contact for the VRS Provider/Contractor to the Board regarding the transcripts and the daily preparations of the hearing. All Regulatory Officers are members of the Regulatory Services Team, Office of the Secretary.

**Technical Authority:**

The Board's contact for the provider of court reporting services to the Board regarding the transcripts and the daily operations of the hearing. The Technical Authority is the Secretary of the Board or a delegated member of the Regulatory Services Team, usually the officiating Regulatory Officer.

**Public:**

As a court record, hearing records are available to the public and the public makes use of the Board library or the NEB website ([www.neb-one.gc.ca](http://www.neb-one.gc.ca)) for access to transcripts.

**Board Staff:**

Board staff that provides support during the hearing process.

**ANNEX "B"****BASIS OF PAYMENT**

For reduction of paperwork handling, bidders are invited to submit this Annex 'as is'.

Bidders must provide pricing as identified below.

GST is to be excluded from the prices quoted herein.  
If applicable, GST will be added as a separate line item.

**A. FOR THE PERIOD OF ONE YEAR FROM DATE OF AWARD****1.1 Price:**

"Basic Service" fee to be billed to the National Energy Board:

A firm, fixed rate of \$\_\_\_\_\_ per "word".

**1.2 Word Definition:**

For purposes of this requirement, a "word" is defined as 5 characters of content in the submitted electronic transcript file.

The "word" count will be calculated by taking the total content character count in MS Word and dividing this number by five.

**1.3 Copies for Parties:**

The Board requests copies on behalf of parties, including the applicant, in accordance with article 4.4 of Annex "A", Statement of Work. The cost of the first copy (hard copy or CD ROM) to each of the parties, including the applicant, so requested must be billed to the Board. Any subsequent copies requested by these parties, or any other party, must be billed directly to the requesting party.

For the provision of these subsequent transcript copies, both electronic CD ROM and bound paper, the fee for the hard copies will be calculated based on a per page basis.

Copies for Parties (billed as described in article 4.4 of Annex "A" Statement of Work):

- a. a firm, fixed rate of \$\_\_\_\_\_ per page for printed copies; and
- b. a firm, fixed rate of \$\_\_\_\_\_ per day's transcript for PDF version on CD ROM.

**2.0 AUDIO CDs (billed to the requesting party)**

A firm, fixed rate of \$\_\_\_\_\_ per audio CD with one day's proceedings.

**3.0 BASIC SERVICE**

The Board shall use the following "fee for service" structure for the basic service of VRS.

**3.1 "Basic Service" must comprise:**

- a) verbatim reporting and transcription;
- b) editing and quality control;
- c) required production facilities for verbatim reporting, production of additional copies and audio recordings;
- d) maintaining required audio recordings;
- e) direct transfer of an accurate PDF rendition of the transcripts to the Board using the online form;
- f) direct transfer of a signed copy of the electronic submission receipt and electronic renditions of the transcripts in Word, as well as a PDF and ASCII version;
- g) the bidder's factors for overhead costs and profit involved in doing business with the Board; and
- h) the 15 hard copies required by the Board for each hearing including delivery costs.

#### 4.0 TRAVEL AND LIVING

For the purposes of this proposal, the Board will incur "nil" travel costs if a hearing were required at the following locations:

Halifax, Saint John, Montréal, Québec City, National Capital Region (Ottawa, Gatineau); Greater Toronto Area\*; Winnipeg, Regina, Calgary, Edmonton, Vancouver, Victoria.

\*For the purposes of this Request for Proposal, GTA is to be interpreted as meaning the City of Toronto, and the Regional Municipalities of York, Halton, Peel and Durham.

If the Contractor is able to provide "nil" travel costs to any other location in Canada, please state below:

( ) Nil travel cost to any other location in Canada

Or

( ) Contractor can provide services to the following locations and not incur travel costs. Any other locations not specified above and on the following list will incur travel cost as specified below:

City

For all other locations not identified the Board will reimburse actual travel, including airfare, and living expenses incurred. Meals, incidentals and private vehicle mileage are not to exceed the rates given in the Treasury Board Travel Directive in effect at the time of travel which can be found at [http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/tbm\\_113/menu-travel-voyage-eng.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/tbm_113/menu-travel-voyage-eng.asp). All travel arrangements must be consistent with the provisions of this directive.

#### 5.0 DELIVERY COSTS

Any delivery costs incurred must be billed at actual cost, without markup, directly to the party requesting the materials.

**6.0 CANCELLATION FEE**

6.1 Bidders to choose one of the following options:

- a) Cancellation Fee \_\_\_\_\_ per day for planned hearing days, notice to be five (5) business days (1 week). Maximum to be \$8,000 for entire Hearing inclusive; or
- b) A flat rate of \_\_\_\_\_ for the entire Hearing, inclusive. Maximum to be \$8,000; or
- c) \$1,000 per day for planned hearing days, not to exceed \$8,000 total fee for the entire length of the hearing, whichever is less, based on a 48-hour cancellation notice; or
- d) Cancellation fee schedule (lump sum payable):

# of weeks prior to start of Hearing	4-week Hearing	3-week Hearing	2-week Hearing	1-week Hearing
4	\$2000	No Fee	No Fee	No Fee
3	\$4000	\$2000	No Fee	No Fee
2	\$6000	\$4000	\$2000	No Fee
1	\$8000	\$6000	\$4000	\$2000
During week # of Hearing	4-week Hearing	3-week Hearing	2-week Hearing	1-week Hearing
1	\$6000	\$4000	\$2000	No Fee
2	\$4000	\$2000	No Fee	N/A
3	\$2000	No Fee	N/A	N/A
4	No Fee	N/A	N/A	N/A

**EXAMPLE**

If a 4 week hearing is canceled 2 weeks in advance, then the Contractor would receive a lump sum of \$6000 as a cancellation fee.

**EXAMPLE**

If a 3 week hearing has begun, and the last 2 weeks are canceled during the first week, then the contractor would receive a lump sum of \$2000 as a cancellation fee.

CANCELLATION FEE OPTION: \_\_\_\_\_

## 7.0 RECESS FEE (per hearing day)

If a proceeding terminates within less than two hours of the beginning of the day, a recess fee may be charged based on chosen option.

Bidders to choose one of the following options:

- a) A minimum of \_\_\_\_\_ words to be billed to the Board per hearing day; or
- b) An inconvenience fee of \_\_\_\_\_ per hearing day.

## B. FOR YEAR #2 (TBD)

### 1.1 Price:

"Basic Service" fee to be billed to the National Energy Board:

A firm, fixed rate of \$\_\_\_\_\_ per "word".

### 1.2 Word Definition:

For purposes of this requirement, a "word" is defined as 5 characters of content in the submitted electronic transcript file.

The "word" count will be calculated by taking the total content character count in MS Word and dividing this number by five.

### 1.3 Copies for Parties:

The Board requests copies on behalf of parties, including the applicant, in accordance with article 4.4 of Annex "A", Statement of Work. The cost of the first copy (hard copy or CD ROM) to each of the parties, including the applicant, so requested must be billed to the Board. Any subsequent copies requested by these parties, or any other party, must be billed directly to the requesting party.

For the provision of these subsequent transcript copies, both electronic CD ROM and bound paper, the fee for the hard copies will be calculated based on a per page basis.

Copies for Parties (billed as described in article 4.4 of Annex "A" Statement of Work):

- a. a firm, fixed rate of \$\_\_\_\_\_ per page for printed copies; and
- b. a firm, fixed rate of \$\_\_\_\_\_ per day's transcript for PDF version on CD ROM.

## 2.0 AUDIO CDs (billed to the requesting party)

A firm, fixed rate of \$\_\_\_\_\_ per audio CD with one day's proceedings.

## 3.0 BASIC SERVICE

The Board shall use the following "fee for service" structure for the basic service of VRS.

**3.1 "Basic Service" must comprise:**

- a) verbatim reporting and transcription;
- b) editing and quality control;
- c) required production facilities for verbatim reporting, production of additional copies and audio recordings;
- d) maintaining required audio recordings;
- e) direct transfer of an accurate PDF rendition of the transcripts to the Board using the online form;
- f) direct transfer of a signed copy of the electronic submission receipt and electronic renditions of the transcripts in Word, as well as a PDF and ASCII version;
- g) the bidder's factors for overhead costs and profit involved in doing business with the Board; and
- h) the 15 hard copies required by the Board for each hearing including delivery costs.

**4.0 TRAVEL AND LIVING**

For the purposes of this proposal, the Board will incur "nil" travel costs if a hearing were required at the following locations:

Halifax, Saint John, Montréal, Québec City, National Capital Region (Ottawa, Gatineau); Greater Toronto Area\*; Winnipeg, Regina, Calgary, Edmonton, Vancouver, Victoria.

\*For the purposes of this Request for Proposal, GTA is to be interpreted as meaning the City of Toronto, and the Regional Municipalities of York, Halton, Peel and Durham.

If the Contractor is able to provide "nil" travel costs to any other location in Canada, please state below:

( ) Nil travel cost to any other location in Canada

Or

( ) Contractor can provide services to the following locations and not incur travel costs. Any other locations not specified above and on the following list will incur travel cost as specified below:

City

For all other locations not identified the Board will reimburse actual travel, including airfare, and living expenses incurred. Meals, incidentals and private vehicle mileage are not to exceed the rates given in the Treasury Board Travel Directive in effect at the time of travel which can be found at [http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/tbm\\_113/menu-travel-voyage-eng.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/tbm_113/menu-travel-voyage-eng.asp). All travel arrangements must be consistent with the provisions of this directive.

**5.0 DELIVERY COSTS**



Any delivery costs incurred must be billed at actual cost, without markup, directly to the party requesting the materials.

## 6.0 CANCELLATION FEE

6.1 Bidders to choose one of the following options:

- a) Cancellation Fee \_\_\_\_\_ per day for planned hearing days, notice to be five (5) business days (1 week). Maximum to be \$8,000 for entire Hearing inclusive; or
- b) A flat rate of \_\_\_\_\_ for the entire Hearing, inclusive. Maximum to be \$8,000; or
- c) \$1,000 per day for planned hearing days, not to exceed \$8,000 total fee for the entire length of the hearing, whichever is less, based on a 48-hour cancellation notice; or
- d) Cancellation fee schedule (lump sum payable):

# of weeks prior to start of Hearing	4-week Hearing	3-week Hearing	2-week Hearing	1-week Hearing
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3	\$4000	\$2000	No Fee	No Fee
2	\$6000	\$4000	\$2000	No Fee
1	\$8000	\$6000	\$4000	\$2000
During week # of Hearing	4-week Hearing	3-week Hearing	2-week Hearing	1-week Hearing
1	\$6000	\$4000	\$2000	No Fee
2	\$4000	\$2000	No Fee	N/A
3	\$2000	No Fee	N/A	N/A
4	No Fee	N/A	N/A	N/A

### EXAMPLE

If a 4 week hearing is canceled 2 weeks in advance, then the Contractor would receive a lump sum of \$6000 as a cancellation fee.

### EXAMPLE

If a 3 week hearing has begun, and the last 2 weeks are canceled during the first week, then the contractor would receive a lump sum of \$2000 as a cancellation fee.

CANCELLATION FEE OPTION: \_\_\_\_\_

Solicitation No. - N° de l'invitation

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Buyer ID - Id de l'acheteur

cal097

Client Ref. No. - N° de réf. du client

NEB

File No. - N° du dossier

CAL-3-36093

CCC No./N° CCC - FMS No/ N° VME

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## **7.0 RECESS FEE (per hearing day)**

If a proceeding terminates within less than two hours of the beginning of the day, a recess fee may be charged based on chosen option.

Bidders to choose one of the following options:

- a) A minimum of \_\_\_\_\_ words to be billed to the Board per hearing day; or
- b) An inconvenience fee of \_\_\_\_\_ per hearing day.

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84084-130109/A

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NEB

CAL-3-36093

## **ANNEX "C"**

### **SECURITY REQUIREMENTS CHECK LIST**

(see attached document)

**ANNEX "D"****FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - CERTIFICATION**

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with such request by Canada will also render the bid non-responsive or will constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit HRSDC-Labour's website.

Date: \_\_\_\_\_ (YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- ☐ A1. The Bidder certifies having no work force in Canada.
- ☐ A2. The Bidder certifies being a public sector employer.
- ☐ A3. The Bidder certifies being a federally regulated employer being subject to the *Employment Equity Act*.
- ☐ A4. The Bidder certifies having a combined work force in Canada of less than 100 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]).
- ☐ A5. The Bidder has a combined workforce in Canada of 100 or more employees; and
  - ☐ A5.1. The Bidder certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with HRSDC-Labour.

**OR**

- ☐ A5.2. The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to HRSDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to HRSDC-Labour.

B. Check only one of the following:

- ☐ B1. The Bidder is not a Joint Venture.

**OR**

- ☐ B2. The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)

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NEB

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**ANNEX "E"**

**TASK AUTHORIZATION FORM PWGSC-TPSGC 572**

(see attached document for sample)

Solicitation No. - N° de l'invitation

84084-130109/A

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cal097

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NEB

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CAL-3-36093

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**ANNEX "F"****TASK AUTHORIZATION USAGE REPORT**

Return to:

Public Works and Government Services Canada

Acquisitions Branch

Facsimile: (403) 292-5786

Email: wst-pa-cal@pwgsc-tpsgc.gc.ca

SUPPLIER:

CONTRACT NO:

84084-130109

DEPARTMENT OR AGENCY:

National Energy Board

Item No.	Task No. Description	Value of the Task (GST/HST excluded)
(A) Total Dollar Value of Tasks for this reporting period:		
(B) Accumulated Tasks totals to date:		
(A+B) Total Accumulated Tasks:		

**NIL REPORT:** We have not done any business with the federal government for this period [    ]

PREPARED BY: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Solicitation No. - N° de l'invitation

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Client Ref. No. - N° de réf. du client

NEB

Amd. No. - N° de la modif.

File No. - N° du dossier

CAL-3-36093

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cal097

CCC No./N° CCC - FMS No/ N° VME

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**ANNEX "G"**

**TRANSCRIPT SAMPLE**

(See attached document)

Solicitation No. - N° de l'invitation

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File No. - N° du dossier

CAL-3-36093

Buyer ID - Id de l'acheteur

cal097

CCC No./N° CCC - FMS No/ N° VME

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**ANNEX "H"**

**HEARING STATISTICS**

(See attached document)



NEB Hearing Statistics from 2005 to Present  
(except Mackenzie Gas Project)

Hearing Order	Year & Month	Company	Description	Type of Hearing	No. of Hearing Days	No. of words (Approx.)	No. of pages of transcripts	Cancellation Fees	Cost to NEB	Location	Language
RH-R-1-2005	Apr-05	CAPP Review	Review of TCPL Tolls	Review	1	26,249.40	63		\$	Calgary, AB	E
RH-1-2005	Apr-05	Enbridge Pipelines Inc.	Tolls Application	Tolls	4	124,067.60	396		\$	Calgary, AB	E
MH-1-2005	May-05	New Brunswick Power Corporation	NB Detailed Route Hearing	DR	1	42,953.00	116		\$	St. Stephen, NB	E
MH-2-2005	May-05	Chevron Standard Limited, Neste Canada Inc. and Chevron Canada Limited	Priority Destination Delivery on the Terasen System	Tolls	1	28,706.00	64		\$	Calgary, AB	E
MH-2-2005	Sep-05	Chevron Standard Limited, Neste Canada Inc. and Chevron Canada Limited	Priority Destination Delivery on the Terasen System	Tolls	1	28,716.00	60		\$	Calgary, AB	E
RHW-2-2005	Jan-06	Coral Energy FT RAM	Argument	Tolls	1	38,633.00	82		\$	Calgary, AB	E
RHW-3-2005	Jan-06	Centra Transmission Holdings, Inc.	Argument	Tolls Motion	1	42,572.60	85		\$	Calgary, AB	E
MH-2-2005	Mar-06	Chevron Standard Limited, Neste Canada Inc. and Chevron Canada Limited	Priority Destination Delivery on the Terasen System	Tolls Motion	1	22,347.40	55		\$	Calgary, AB	E
	Apr-06	Terasen Pipeline (Trans Mountain) Inc. Tariffs	Allocation of Westridge Dock Capacity	Tolls Motion	1	42,392.20	83		\$	Calgary, AB	E
EH-1-2006	Jun-06	Sea Breeze Victoria Converter Corp.	Juan de Fuca Cable Project	Electricity Facilities	3	93,209.40	222		\$	Esquimalt, BC	E
OH-1-2006	Aug-06	Terasen Pipeline(Trans Mountain) Inc.	TMX Anchor Loop Project	Oil Pipeline Facilities	3	97,202.20	239		\$	Calgary, AB	E

NEB Hearing Statistics from 2005 to Present  
(except Mackenzie Gas Project)

Hearing Order	Year & Month	Company	Description	Type of Hearing	No. of Hearing Days	No. of words (Approx.)	No. of pages of transcripts	Cancellation Fees	Cost to NEB	Location	Language
RH-1-2006	Sep-06	TransCanada Pipelines Ltd.	Application for Firm Transportation Short Notice Service (FT-SN) and Short Notice Balancing Service (SNB)	Tolls	8	285,417.60	650		\$	Toronto, ON Calgary, AB	E/F
MH-1-2006	Oct-06	TransCanada Keystone Pipeline GP Ltd.	Leave to Transfer Certain Pipeline Facilities comprising part of the TCPL Mainline System from TransCanada Pipelines Limited	Leave to Transfer	8	283,692.00	713	\$	\$	Calgary, AB	E/F
GH-1-2006	Nov-06	Enbridge Brunswick Pipeline Ltd.	Brunswick Pipeline Project	Gas/ Facilities	13	741,676.00	1971		\$	Saint John, NB	E/F
GH-2-2006	Nov 06 & Mar 07	EnCana Corporation/Deep Panuke	Deep Panuke Offshore Gas Development Project	Gas/ Facilities	7	233,461.00	649		\$	Halifax and Antigonish, NS	E/F
OH-2-2007	Apr-07	Enbridge Pipelines Inc.	ACEE Project	Oil/ Facilities	3	80,961.20	240		\$	Regina, SK	E
RH-1-2007	Apr-07	TransCanada Pipelines Ltd.	Gros Cacouna Receipt Point	Tolls	7	276,370.00	776	\$	\$	Quebec City, PQ	E/F
OH-1-2007	June-07	TransCanada Keystone Pipeline GP Ltd.	Oil Pipeline Facilities	Oil/ Facilities	10	459,080.00	1,248	\$	\$	Calgary, AB and Regina, SK	E/F
MH-R-1-2007	Jun-07	Alliance/Siebert	Landowner Review	General	2	106,166.00	335		\$	Grande Prairie, AB	E
OH-3-2007	1-5 Aug 07 29 Oct - 3 Nov 07	Enbridge Pipelines Inc.	Southern Lights Project	Oil/ Facilities	4	180,270.00	450	\$	\$	Regina, SK and Calgary, AB	E
MH-2-2007	Sep-07	Husky Oil	(Confidential SDD)	General	1	55,213.00	132		\$	Calgary, AB	E
OH-4-2007	Nov-07	Enbridge Pipelines Inc.	Alberta Clipper Project	Oil Pipeline Facilities	5	126,985.00	350	\$	\$	Regina, SK and Calgary, AB	E
OH-5-2007	Jan-08	Enbridge Pipelines Inc.	Line 4 Extension OH-5-2007	Oil Pipeline Facilities	1	70,554.80	182	\$	\$	Nisku, AB	E
OH-1-2008	08-Apr	TransCanada Keystone Pipeline GP Ltd.	Cushing Extension	Oil Pipeline Facilities	1	51,000	156		\$	Oyen, AB	E
<b>TOTALS:</b>					<b>87</b>	<b>3,537,995.40</b>	<b>9317</b>	<b>\$</b>	<b>\$</b>		
Average per day						<b>40,080.40</b>	<b>105.29</b>		<b>\$</b>		

## Task Authorization Autorisation de tâche

<b>Instruction for completing the form PWGSC - TPSGC 572 - Task Authorization</b> <i>(Use form DND 626 for contracts for the Department of National Defence)</i>	<b>Instruction pour compléter le formulaire PWGSC - TPSGC 572 - Autorisation de tâche</b> <i>(Utiliser le formulaire DND 626 pour les contrats pour le ministère de la Défense)</i>
---	--

<b>Contract Number</b> Enter the PWGSC contract number.	<b>Numéro du contrat</b> Inscrire le numéro du contrat de TPSGC.
<b>Contractor's Name and Address</b> Enter the applicable information	<b>Nom et adresse de l'entrepreneur</b> Inscrire les informations pertinentes
<b>Security Requirements</b> Enter the applicable requirements	<b>Exigences relatives à la sécurité</b> Inscrire les exigences pertinentes
<b>Total estimated cost of Task (Applicable taxes extra)</b> Enter the amount	<b>Coût total estimatif de la tâche (Taxes applicables en sus)</b> Inscrire le montant

<b>For revision only</b>	<b>Aux fins de révision seulement</b>
<b>TA Revision Number</b> Enter the revision number to the task, if applicable.	<b>Numéro de la révision de l'AT</b> Inscrire le numéro de révision de la tâche, s'il y a lieu.
<b>Total Estimated Cost of Task (Applicable taxes extra) before the revision</b> Enter the amount of the task indicated in the authorized TA or, if the task was previously revised, in the last TA revision.	<b>Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision</b> Inscrire le montant de la tâche indiquée dans l'AT autorisée ou, si la tâche a été révisée précédemment, dans la dernière révision de l'AT.
<b>Increase or Decrease (Applicable taxes extra), as applicable</b> As applicable, enter the amount of the increase or decrease to the Total Estimated Cost of Task (Applicable taxes extra) before the revision.	<b>Augmentation ou réduction (Taxes applicables en sus), s'il y a lieu</b> S'il y a lieu, inscrire le montant de l'augmentation ou de la réduction du Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision.

### 1. Required Work: Complete sections A, B, C, and D, as required.

#### A. Task Description of the Work required:

Complete the following paragraphs, if applicable.  
Paragraph (a) applies only if there is a revision to an authorized task.

(a) Reason for revision of TA, if applicable:  
Include the reason for the revision; i.e. revised activities; delivery/completion dates; revised costs. Revisions to TAs must be in accordance with the conditions of the contract. See Supply Manual 3.35.1.50 or paragraph 6 of the Guide to Preparing and Administering Task Authorizations.

(b) Details of the activities to be performed (include as an attachment, if applicable)

(c) Description of the deliverables to be submitted (include as an attachment, if applicable).

(d) Completion dates for the major activities and/or submission dates for the deliverables (include as an attachment, if applicable).

### 1. Travaux requis : Remplir les sections A, B, C et D, au besoin.

#### A. Description de tâche des travaux requis :

Remplir les alinéas suivants, s'il y a lieu : L'alinéa (a) s'applique seulement s'il y a révision à une tâche autorisée.

(a) Motif de la révision de l'AT, s'il y a lieu : Inclure le motif de la révision c.-à.-d., les activités révisées, les dates de livraison ou d'achèvement, les coûts révisés. Les révisions apportées aux AT doivent respecter les conditions du contrat. Voir l'article 3.35.1.50 du Guide des approvisionnements ou l'alinéa 6 du Guide sur la préparation et l'administration des autorisations de tâches.

(b) Détails des activités à exécuter (joindre comme annexe, s'il y a lieu).

(c) Description des produits à livrer (joindre comme annexe, s'il y a lieu).

(d) Les dates d'achèvement des activités principales et (ou) les dates de livraison des produits (joindre comme annexe, s'il y a lieu).

---

**B. Basis of Payment:**

Insert the basis of payment or bases of payment that form part of the contract that are applicable to the task description of the work; e.g. firm lot price, limitation of expenditure, firm unit price

**C. Cost of Task:****Insert Option 1 or 2:****Option 1:**

Total estimated cost of Task (GST/HST extra): Insert the applicable cost elements for the task determined in accordance with the contract basis of payment; e.g. Labour categories and rates, level of effort, Travel and living expenses, and other direct costs.

**Option 2:**

Total cost of Task (GST/HST extra): Insert the firm unit price in accordance with the contract basis of payment and the total estimated cost of the task.

**D. Method of Payment**

Insert the method(s) of payment determined in accordance with the contract that are applicable to the task; i.e. single payment, multiple payments, progress payments or milestone payments. For milestone payments, include a schedule of milestones.

**B. Base de paiement :**

Insérer la base ou les bases de paiement qui font partie du contrat qui sont applicables à la description du travail à exécuter : p. ex., prix de lot ferme, limitation des dépenses et prix unitaire ferme.

**C. Coût de la tâche :****Insérer l'option 1 ou 2****Option 1 :**

Coût total estimatif de la tâche (TPS/TVH en sus) Insérer les éléments applicables du coût de la tâche établies conformément à la base de paiement du contrat. p. ex., les catégories de main d'œuvre, le niveau d'effort, les frais de déplacement et de séjour et autres coûts directs.

**Option 2 :**

Coût total de la tâche (TPS/TVH en sus) : Insérer le prix unitaire ferme conformément à la base de paiement du contrat et le coût estimatif de la tâche.

**D. Méthode de paiement**

Insérer la ou les méthode(s) de paiement établit conformément au contrat et qui sont applicable(s) à la tâche; c.-à.-d., paiement unique, paiements multiples, paiements progressifs ou paiements d'étape. Pour ces derniers, joindre un calendrier des étapes.

---

**2. Authorization(s):**

The client and/or PWGSC must authorize the task by signing the Task Authorization in accordance with the conditions of the contract. The applicable signatures and the date of the signatures is subject to the TA limits set in the contract. When the estimate of cost exceeds the client Task Authorization's limits, the task must be referred to PWGSC.

**3. Contractor's Signature**

The individual authorized to sign on behalf of the Contractor must sign and date the TA authorized by the client and/or PWGSC and provide the signed original and a copy as detailed in the contract.

**2. Autorisation(s) :**

Le client et (ou) TPSGC doivent autoriser la tâche en signant l'autorisation de tâche conformément aux conditions du contrat. Les signatures et la date des signatures appropriées sont assujetties aux limites d'autorisation de tâche établies dans le contrat. Lorsque l'estimation du coût dépasse les limites d'autorisation de tâches du client, la tâche doit être renvoyée à TPSGC.

**3. Signature de l'entrepreneur**

La personne autorisée à signer au nom de l'entrepreneur doit signer et dater l'AT, autorisée par le client et (ou) TPSGC et soumettre l'original signé de l'autorisation et une copie tel que décrit au contrat.

---



## Task Authorization Autorisation de tâche

Contract Number - Numéro du contrat

Contractor's Name and Address - Nom et l'adresse de l'entrepreneur	Task Authorization (TA) No. - N° de l'autorisation de tâche (AT)
	Title of the task, if applicable - Titre de la tâche, s'il y a lieu
	Total Estimated Cost of Task (Applicable taxes extra) Coût total estimatif de la tâche (Taxes applicables en sus) \$
Security Requirements: This task includes security requirements Exigences relatives à la sécurité : Cette tâche comprend des exigences relatives à la sécurité <input type="checkbox"/> No - Non <input type="checkbox"/> Yes - Oui    If YES, refer to the Security Requirements Checklist (SRCL) included in the Contract Si OUI, voir la Liste de vérification des exigences relative à la sécurité (LVERS) dans le contrat  ▶	

### For Revision only - Aux fins de révision seulement

TA Revision Number, if applicable Numéro de révision de l'AT, s'il y a lieu	Total Estimated Cost of Task (Applicable taxes extra) before the revision Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision \$	Increase or Decrease (Applicable taxes extra), as applicable Augmentation ou réduction (Taxes applicables en sus), s'il y a lieu \$
--	--	---

**Start of the Work for a TA : Work cannot commence until a TA has been authorized in accordance with the conditions of the contract.**

**Début des travaux pour l'AT : Les travaux ne peuvent pas commencer avant que l'AT soit autorisée conformément au contrat.**

### 1. Required Work: - Travaux requis :

A. Task Description of the Work required - Description de tâche des travaux requis	See Attached - Ci-joint <input type="checkbox"/>
B. Basis of Payment - Base de paiement	See Attached - Ci-joint <input type="checkbox"/>
C. Cost of Task - Coût de la tâche	See Attached - Ci-joint <input type="checkbox"/>
D. Method of Payment - Méthode de paiement	See Attached - Ci-joint <input type="checkbox"/>

Contract Number - Numéro du contrat

## 2. Authorization(s) - Autorisation(s)

By signing this TA, the authorized client and (or) the PWGSC Contracting Authority certify(ies) that the content of this TA is in accordance with the conditions of the contract.

The client's authorization limit is identified in the contract. When the value of a TA and its revisions is in excess of this limit, the TA must be forwarded to the PWGSC Contracting Authority for authorization.

En apposant sa signature sur l'AT, le client autorisé et (ou) l'autorité contractante de TPSGC atteste(nt) que le contenu de cette AT respecte les conditions du contrat.

La limite d'autorisation du client est précisée dans le contrat. Lorsque la valeur de l'AT et ses révisions dépasse cette limite, l'AT doit être transmise à l'autorité contractante de TPSGC pour autorisation.

\_\_\_\_\_  
Name and title of authorized client - Nom et titre du client autorisé à signer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
PWGSC Contracting Authority - Autorité contractante de TPSGC

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## 3. Contractor's Signature - Signature de l'entrepreneur

\_\_\_\_\_  
Name and title of individual authorized - to sign for the Contractor  
Nom et titre de la personne autorisée à signer au nom de l'entrepreneur

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**JOINT REVIEW PANEL FOR THE ENBRIDGE  
NORTHERN GATEWAY PROJECT  
COMMISSION D'EXAMEN CONJOINT DU PROJET  
ENBRIDGE NORTHERN GATEWAY**



**Hearing Order OH-4-2011  
Ordonnance d'audience OH-4-2011**

**Northern Gateway Pipelines Inc.  
Enbridge Northern Gateway Project  
Application of 27 May 2010**

**Demande de Northern Gateway Pipelines Inc.  
du 27 mai 2010 relative au projet  
Enbridge Northern Gateway**

**VOLUME 169**

**Hearing held at  
Audience tenue à**

**Chances Prince Rupert  
240 West, 1<sup>st</sup> Avenue  
Prince Rupert, British Columbia**

**April 24, 2013  
Le 24 avril 2013**

**International Reporting Inc.  
Ottawa, Ontario  
(613) 748-6043**

**Canada**

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as represented by the Minister of the Environment  
and the National Energy Board

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and, as such, is taped and transcribed in either of the  
official languages, depending on the languages  
spoken by the participant at the public hearing.

Printed in Canada

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représentée par le Ministre de l'Environnement et  
l'Office national de l'énergie

Cette publication est un compte rendu textuel des  
délibérations et, en tant que tel, est enregistrée et  
transcrite dans l'une ou l'autre des deux langues  
officielles, compte tenu de la langue utilisée par le  
participant à l'audience publique.

Imprimé au Canada



HEARING /AUDIENCE

OH-4-2011

IN THE MATTER OF an application filed by the Northern Gateway Pipelines Limited Partnership for a Certificate of Public Convenience and Necessity pursuant to section 52 of the *National Energy Board Act*, for authorization to construct and operate the Enbridge Northern Gateway Project.

HEARING LOCATION/LIEU DE L'AUDIENCE

Hearing held in Prince Rupert (British Columbia), Wednesday, April 24, 2013  
Audience tenue à Prince Rupert (Colombie-Britannique), mercredi, le 24 avril 2013

JOINT REVIEW PANEL/LA COMMISSION D'EXAMEN CONJOINT

S. Leggett                      Chairperson/Présidente

K. Bateman                    Member/Membre

H. Matthews                  Member/Membre

## **APPEARANCES/COMPARUTIONS**

**(i)**

### **APPLICANT/DEMANDEUR**

Northern Gateway Pipelines Inc.

- Mr. Richard A. Neufeld, Q.C.
- Mr. Ken MacDonald
- Mr. Bernie Roth
- Ms. Laura Estep
- Ms. Kathleen Shannon
- Mr. Dennis Langen
- Mr. Douglas Crowther

### **INTERVENORS/INTERVENANTS**

Alberta Federation of Labour

- Ms. Leanne Chahley

Alberta Lands Ltd.

- Mr. Darryl Carter

Alexander First Nation

- Ms. Caroline O'Driscoll

BC Nature and Nature Canada

- Mr. Chris Tollefson
- Mr. Anthony Ho
- Ms. Natasha Gooch

Doug Beckett

Province of British Columbia

- Ms. Elizabeth Graff
- Mr. Christopher R. Jones

Nathan Cullen

C.J. Peter Associates Engineering

- Mr. Chris Peter

Canadian Association of Petroleum Producers (CAPP)

- Mr. Keith Bergner
- Mr. Lewis L. Manning

Cenovus Energy Inc., Nexen Inc., Suncor Energy Marketing Inc.,  
Total E&P Canada Ltd.

- Mr. Don Davies

Coastal First Nations

- Ms. Brenda Gaertner
- Ms. Maria Morellato
- Mr. Art Sterritt

**APPEARANCES/COMPARUTIONS**  
**(Continued/Suite)**

(ii)

**INTERVENORS/INTERVENANTS**

Council of the Haida Nation

- Ms. G.L. Terri-Lynn Williams-Davidson
- Guujaaw

Daiya-Mattess Keyoh

- Mr. Kenny Sam
- Mr. Jim Munroe

Douglas Channel Watch

- Mr. Murray Minchin
- Ms. Cheryl Brown
- Mr. Kelly Marsh
- Mr. Manny Arruda
- Mr. Dave Shannon

Driftpile Cree Nation

- Mr. Aryn F. Lalji

Enoch Cree Nation, Ermineskin Cree Nation and Samson Cree Nation

- Mr. Allan Stonhouse
- Mr. Markel Chernenkoff
- Mr. G. Rangi Jeerakathil

ForestEthics Advocacy, Living Oceans Society  
and Raincoast Conservation Foundation - "The Coalition"

- Mr. Barry Robinson
- Mr. Tim Leadem, Q.C.
- Ms. Sasha Russell
- Ms. Karen Campbell

Fort St. James, District of

- Mr. Kevin Crook

Fort St. James Sustainability Group

- Mr. Lawrence Shute
- Ms. Brenda Gouglas
- Ms. Kandace Kerr

Friends of Morice-Bulkley

- Ms. Dawn Remington
- Mr. Richard Overstall

Gitga'at First Nation

- Mr. Michael Ross
- Ms. Krystle Tan

**APPEARANCES/COMPARUTIONS**  
**(Continued/Suite)**

(iii)

**INTERVENORS/INTERVENANTS**

Gitxaala Nation

- Ms. Rosanne M. Kyle
- Ms. Virginia Mathers
- Ms. Leslie Beckmann

Government of Alberta

- Mr. Evan W. Dixon
- Mr. Ron Kruhlak

Government of Canada

- Mr. James Shaw
- Ms. Dayna Anderson
- Mr. Kirk Lambrecht
- Mr. Brendan Friesen
- Ms. Sarah Bird

Haisla Nation

- Ms. Jennifer Griffith
- Ms. Hana Boye
- Mr. Jesse McCormick
- Mr. Allan Donovan
- Mr. Michael Gordon
- Ms. Gillian Bakker

Heiltsuk Tribal Council

- Ms. Carrie Humchitt
- Mr. Benjamin Ralston
- Ms. Lisa Fong

Kelly Izzard

Kitimat Valley Naturalists

- Mr. Walter Thorne
- Mr. Dennis Horwood
- Ms. April MacLeod
- Mr. Ken Maitland

MEG Energy Corp.

- Mr. Loyola Keough
- Mr. David A. McGillivray

Michel First Nation

- Acting Chief Gil Goerz
- Ms. Tracy Campbell

**APPEARANCES/COMPARUTIONS**  
**(Continued/Suite)**

(iv)

**INTERVENORS/INTERVENANTS**

Northwest Institute of Bioregional Research  
- Ms. Patricia Moss

Office of the Wet'suwet'en  
- Mr. Mike Ridsdale  
- Mr. David De Wit  
- Chief Namoks (John Ridsdale)

Swan River First Nation  
- Mr. Jay Nelson  
- Ms. Dominique Nouvet

United Fishermen and Allied Workers' Union  
- Ms. Joy Thorkelson  
- Mr. Hugh Kerr

Terry Vulcano

Dr. Josette Wier

**National Energy Board/Office national de l'énergie**

- Mr. Andrew Hudson  
- Ms. Carol Hales  
- Ms. Rebecca Brown  
- Mr. Asad Chaudhary  
- Mr. Neil Patterson

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Ms. Tracey Sandgathe	
Dr. Caroline Caza	
Dr. Sean Boyd	
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Ms. Coral deShield	
Mr. Chris Doyle	
Dr. Dan Esler	
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Dr. Andrée Blais-Stevens	
Dr. Carl Brown	
Mr. Kevin Carrigan	
Dr. John Cassidy	
Dr. Caroline Caza	
Dr. Josef Cherniawsky	
Mr. John Clarke	
Mr. Kim Conway	
Dr. Heather Dettman	
Mr. Chris Doyle	
Mr. Wayne Dutchak	
Mr. Michael Dwyer	
Mr. Michael Engelsjord	
Mr. Charles Hansen	
Mr. Grant Hogg	
Dr. Bruce Hollebhone	
Dr. Ali Khelifa	
Mr. Erik Kidd	
Mr. Thomas King	
Dr. Gwyn Lintern	
Ms. Laura Maclean	
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## LIST OF EXHIBITS/LISTE DES PIÈCES

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## **RULINGS/DÉCISIONS**

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------------	--------------------	--

**Government of Canada Panel 1**  
**Examination by Ms. Thorkelson**

--- Upon commencing at 7:59 a.m./L'audience débute à 7h59

19281.           **THE CHAIRPERSON:** Good morning, everyone.

19282.           Are there any preliminary matters that parties wish to raise this morning?

19283.           **MR. PATTERSON:** Madam Chairman, counsel Neil Patterson again.

19284.           We've been advised from the Heiltsuk Nation today that Panels 2 and 3 they won't be answering -- asking any questions, but they will confirm that they are going to be here for cross-examining Panel No. 4.

19285.           **THE CHAIRPERSON:** Thank you for the update, Mr. Patterson.

19286.           **MR. PATTERSON:** You're welcome.

19287.           **THE CHAIRPERSON:** Good morning, Ms. Thorkelson.

19288.           **MS. THORKELSON:** Good morning.

19289.           **THE CHAIRPERSON:** What did you do with the sunshine?

--- (Laughter/Rires)

19290.           **MS. THORKELSON:** I'm sure it will appear after it has a sprinkle.

--- (Laughter/Rires)

19291.           **THE CHAIRPERSON:** Please continue with your questions of this Panel.

19292.           **MS. THORKELSON:** You're pretty safe in Rupert if you make that as a weather forecast.

19293.           **THE CHAIRPERSON:** That's been my experience.

19294.           Please continue with your questions.

**Government of Canada Panel 1  
Examination by Ms. Thorkelson**

19295.                    **MS. THORKELSON:** Thank you.

**BONNIE ANTCLIFFE: Resumed**  
**MICHAEL ENGELSJORD: Resumed**  
**BRAD FANOS: Resumed**  
**JOHN FORD: Resumed**  
**STEVEN GROVES: Resumed**  
**THOMAS KING: Resumed**  
**TRACEY SANDGATHE: Resumed**  
**CAROLINE CAZA: Resumed**  
**SEAN BOYD: Resumed**  
**CARL BROWN: Resumed**  
**CORAL deSHIELD: Resumed**  
**CHRIS DOYLE: Resumed**  
**DAN ESLER: Resumed**  
**GRANT HOGG: Resumed**  
**BRUCE HOLLEBONE: Resumed**  
**RICHARD HOLT: Resumed**  
**ALI KHELIFA: Resumed**  
**LAURA MACLEAN: Resumed**  
**KEN MORGAN: Resumed**  
**PATRICK O'HARA: Resumed**  
**BARRY SMITH: Resumed**  
**JENNIFER WILSON: Resumed**  
**XUEBIN ZHANG: Resumed**  
**JOHN CLARKE: Resumed**  
**HEATHER DETTMAN: Resumed**  
**DAVID PEACOCK: Resumed**

**--- EXAMINATION BY/INTERROGATOIRE PAR MS. THORKELSON:  
(Continued/Suite)**

19296.                    **MS. THORKELSON:** If you could turn to page 28 of the DFO submission on paragraph 99? Page 28. Thank you.

19297.                    DFO notes here that the potential for accidents and malfunctions -- malfunctions leading to an oil spill -- would be a primary pathway of effects or POE.

19298.                    And if we look at page 11, paragraph 29? Thank you.

**Government of Canada Panel 1**  
**Examination by Ms. Thorkelson**

19299. The first sentence says:

*"Following the identification of the pathways of effects and the application of mitigation, should any residual impacts remain, DFO will conduct a risk assessment." (As read)*

19300. And my question is: Did DFO do a risk assessment on the impacts of an oil spill on fish, fish habitat and on fisheries?

--- (A short pause/Courte pause)

19301. **MR. MICHAEL ENGELSJORD:** No, DFO did not.

19302. **MS. THORKELSON:** Thank you.

19303. On page 34? Paragraph 124. Thank you.

19304. DFO says that Enbridge has done a reasonable risk assessment -- or sorry.

19305. On page 34 at paragraph 24, DFO says that Enbridge has done a reasonable risk assessment on the impacts of an oil spill on fisheries resources.

19306. However, is it not true that, in the CSAS Branch Science response regarding spill modelling, that DFO Science said they were not satisfied and had requested more detail regarding Enbridge's QRA and the resisting conclusions about the likelihood of a catastrophic spill?

19307. And if you can't remember that CSAS, we could turn again to E9-21-09, page 64. And this is an answer to -- by the Government to Kitkatla regarding the Science response.

19308. So if you want to take a moment to look at that one.

19309. And the questions says that DFO Science said they were -- the question is: Is it correct that DFO Science said they were not satisfied with the spill response modelling -- with the -- Enbridge's QRA and the resulting conclusions?

**Government of Canada Panel 1**  
**Examination by Ms. Thorkelson**

--- (A short pause/Courte pause)

19310.           **MS. BONNIE ANTCLIFFE:** So you are correct in that this is the advice provided by DFO Science in the CSAS papers, and we did incorporate that advice into our evidence.

19311.           It is important to note that the DFO evidence, the written evidence, was produced in December 2012 and that comes back to paragraph 124, which we spoke to yesterday.

19312.           So paragraph 124, when we talked about an ecological risk assessment being reasonable, what we said was the basis for that was the methodology in the literature. So they followed -- the Proponent followed a published methodology.

19313.           What we also said yesterday about paragraph 124 in our written submission was that we made an observation that that provided useful information. And that was the extent of the context and the frame for the information in 124.

19314.           So that material came out in December of 2011 and then the Science response information which you see here also formed part of our evidence, and it was included in the Information Requests that came out after the written submission.

19315.           **MS. THORKELSON:** So if you're going to -- if you were going to rewrite your submission, would you change paragraph 24 -- 124, sorry?

19316.           **MS. BONNIE ANTCLIFFE:** The context is different, so the context for 124, as we discussed yesterday, was around the habitat risk assessment, the published methodology.

19317.           What we're providing here in the Information Request is more detail from DFO Science who has expertise in this area. We've provided that in the Information Request to be available to all agencies involved in spill response.

19318.           **MS. THORKELSON:** Thank you.

19319.           On page 34 at paragraph 126 -- so it's just scrolling down a bit -- DFO says that the analysis of the accuracy of the spill likelihoods, spill trajectories or fate and behaviour of chemicals of potential concern lies outside of DFO's

**Government of Canada Panel 1**  
**Examination by Ms. Thorkelson**

expertise and mandate.

19320. And we -- I think we heard yesterday it was just out of HAAB's or your department's expertise mandate.

19321. However, DFO's science in B46-2 -- and I don't know why I don't have a -- it's IR 2.73 and I'm sorry I don't have a page number.

19322. It's IR -- sorry, it's 2.7.3 so it's probably way down. Sorry about that, I'm really sorry that I didn't get that in.

19323. In this IR, DFO requested additional information and an assessment of the spread of oil and condensate through Canadian waters for marine accidents all along shipping routes -- along all of the shipping routes rather than for the six scenarios. And we looked at a different IR probably yesterday.

19324. What I did want to know is: Did DFO Science receive the additional information requested?

19325. **THE CHAIRPERSON:** Ms. Thorkelson, I'm not sure if we're on the right IR. It seems to go from 2.7 to 2.8 as opposed to having a 2.7.3.

19326. Is anyone able to help us with a number that that might be? Is there anyone familiar with what Ms. Thorkelson's referring to?

--- (A short pause/Courte pause)

19327. **THE CHAIRPERSON:** Ms. Thorkelson, what IR ---

19328. **MS. THORKELSON:** Okay, the question ---

19329. **THE CHAIRPERSON:** Okay.

19330. **MS. THORKELSON:** --- I have IR 2.73 but we -- maybe -- I'm sure the Department people can remember. It's the Information Request where you requested an assessment regarding the spread of oil and condensate through Canadian waters from marine accidents along all the shipping routes rather than for the six scenarios.

19331. And so I ---

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19332.           **THE CHAIRPERSON:** So it was the Union's IR?
19333.           **MS. THORKELSON:** No, this is the IR from DFO to the -- to Enbridge.
19334.           And I think we looked at one of the discussions yesterday about that IR. It was the one that -- and so that's why I'm sort of confused myself and I thought I checked every one of these yesterday.
19335.           **MR. MICHAEL ENGELSJORD:** I think I have it. I think it's Exhibit B46-2.
19336.           **MS. THORKELSON:** Yes.
19337.           **MR. MICHAEL ENGELSJORD:** Adobe page 174.
19338.           **MS. THORKELSON:** Thank you very much.
19339.           **THE CHAIRPERSON:** Thank you very much.
19340.           **MS. THORKELSON:** Thank you.
19341.           **THE CHAIRPERSON:** Is this where you wanted to be, Ms. Thorkelson?
19342.           **MS. THORKELSON:** Yes, I do believe.
19343.           Thank you so much, Mr. Engelsjord.
19344.           And the question is: Did you receive the additional information that was requested?
- (A short pause/Courte pause)
19345.           **MS. BONNIE ANTCLIFFE:** So, yes, as it refers to here, on Response A, the information provided by the Proponent is in IR 2.76. I understand that is Adobe page 182.
19346.           I'd also like to note that our colleagues from Environment Canada



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have informed us that they did also ask the Proponent for the same type of information.

19347.           **MS. THORKELSON:** I know that you got a response but I was wondering if you got the information.

19348.           **MS. BONNIE ANTCLIFFE:** At this point, we do not have that information but we've noted that the Proponent has provided a commitment to provide that information.

19349.           **MS. THORKELSON:** Thank you.

19350.           Could we go back to page 126? No, sorry, it was page 34, paragraph 124, please?

19351.           Back to the DFO. And this is the -- regarding the point that you're making earlier that they provide -- that your comment was that the Proponent provided useful information and what we were wondering was: What was the useful information that Enbridge provided on the risks that an oil spill would pose to the fisheries resources?

19352.           **MR. MICHAEL ENGELSJORD:** That's from our written evidence so that's referring to the information in the Proponent's EIS and supporting documents.

19353.           **MS. THORKELSON:** How was this information useful and how did DFO utilize it in making their assessment that the Proponent has conducted a reasonable risk assessment?

--- (A short pause/Courte pause)

19354.           **MS. BONNIE ANTCLIFFE:** We'll come back to the comments we made yesterday on paragraph 124; the first part of paragraph 124, "A Reasonable Risk Assessment".

19355.           DFO made that statement in our written evidence based on the methodology used by the Proponent for doing risk assessment. We simply noted, from our perspective, that they followed a published international risk assessment methodology.

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19356. The second part of that statement, again, was made in December, 2012 and the DFO is simply stating there that the Proponent provided useful information.

19357. As we noted yesterday, there isn't more substance or analysis behind that from the Department of Fisheries and Oceans to back up that statement.

19358. **MS. THORKELSON:** Thank you.

19359. **MS. BONNIE ANTCLIFFE:** Sorry, correction. That would be 2011.

19360. **MS. THORKELSON:** As we know, this hearing is held under the *Canadian Environmental Assessment Act* and the CEAA is referred to on page 9 of the DFO submission.

19361. And are you familiar with Section 19 of the Act that says that environmental assessment must take into account the effects and the significance of malfunctions or accidents?

19362. We are wondering was the Department of Fisheries and Oceans satisfied with the environmental assessment that Enbridge did regarding the significance of malfunctions or accidents on the commercial fishery?

19363. **MS. ANDERSON:** Madam Chair, I apologize for the interruption.

19364. I think that this question has been asked and answered a few times now and we've heard Ms. Antcliffe say that there was no assessment with respect to the commercial fisheries itself.

19365. **MS. THORKELSON:** But my -- this is not a question about whether they did an assessment, whether they were satisfied that Enbridge did an assessment that took into account the effects and significance of malfunctions or accidents.

19366. And the reason -- and the question goes to the point that they've made is that the methodology that Enbridge used for the risk assessment was satisfactory.

19367. And we're saying: Did it take into account -- because the

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environmental assessment is supposed to take into account the effects and significance of malfunction or accidents, were they satisfied that Enbridge's account did so?

19368.           **MS. ANDERSON:** I think that second iteration of the question was little bit different from the first which seemed to be related solely to commercial fisheries.

19369.           **MS. THORKELSON:** Yes.

19370.           **MS. ANDERSON:** So I think the -- how it was re-phrased I think would be a fair question.

--- (A short pause/Courte pause)

19371.           **MR. MICHAEL ENGELSJORD:** We're familiar the *CEA Act* and the requirements of it in the accidents and malfunctions are something that must be considered under CEAA.

19372.           In this process, DFO's participating to provide its technical advice so we don't see ourselves as responsible for all components. We provide the advice that we're able to provide.

19373.           **MS. BONNIE ANTCLIFFE:** I would like to add to that as well.

19374.           Spills are accidents and we've talked a little bit about those but I understand that Panel 2 will be informative here. But spills are accidents and spills are illegal.

19375.           And in terms of spills, there are multiple agencies that will be responsible for looking at spill prevention, planning, response and the environmental effects component. We've talked yesterday about the components related to environmental effects and it's important to note that there are many components we need to consider with respect to environmental effects. Not all of those are under DFO's -- DFO's mandate.

19376.           So, for example, we talked about fate and behaviour being a key component to understanding and understanding that piece is essential to looking at the environmental effects.

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19377. And we talked about the different environmental effects and many of the considerations around that. We didn't talk about the likelihood of a spill piece because that's not DFO's responsibility.

19378. But we just wanted to draw in here the discussion around environmental effects needs to be taken in a broad context looking at likelihood of a spill, fate and behaviour, and then the considerations to understand environmental effects such as exposure that impacts.

19379. **MS. THORKELSON:** Thank you. I'm going to come back to this again in a few minutes.

--- (A short pause/Courte pause)

19380. **MS. THORKELSON:** Do you believe that by not providing an analysis of a significance of a spill on the commercial fishery that as a lead federal agency managing Canadians -- Canada's fisheries that you -- that this submission has satisfied DFO's mandate to provide Canadians with a sustainable fisheries resource that provides for an economically viable and -- and diverse fishery?

--- (A short pause/Courte pause)

19381. **MS. BONNIE ANTCLIFFE:** We focussed on the effects of spills on fish and fish habitat through our evidence and reviewing the Proponent's information.

19382. We can't answer that question with respect to the effects of a spill on commercial fisheries without having all of the components.

19383. So, again, all of the components would be likelihood of a spill -- that's not DFO's regulatory authority -- understanding the fate and behaviour of the product -- again, that's not DFO's authority -- and then looking at environmental effects and conditions around that amount -- amount of product spilled, timing of the spill, overlap with biological resources, seasonality, weather and other considerations.

19384. So there are many components required to answer your question with respect to effects on fisheries.

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19385. **MS. THORKELSON:** Thank you then.

19386. Then, which department of the Canadian Government is responsible to analyze whether this Project is going to leave Canada with a sustainable fisheries resource that provides for an economically viable and diverse fishery?

--- (A short pause/Courte pause)

19387. **MS. BONNIE ANTCLIFFE:** In this environmental assessment process, DFO among other Federal Government departments are providing advice to the Panel to make recommendations.

19388. We also noted throughout this process that there are information requirements requested by the various federal governments to inform decision-making from the Panel on this environmental assessment.

19389. It might be helpful for us just to note again, with respect to spills which are accidents and illegal, in terms of the Department of Fisheries and Oceans the forum for discussing spills is not our integrated fisheries management planning process. That is our forum for the management of fisheries, for the conservation and allocation of fisheries.

19390. But with respect to spills -- looking at planning, prevention, response and other matters -- it really is a multi-agency approach to understanding all components of a spill, piecing those together to get at some of the questions that you're asking with respect to the effects of spills on fisheries.

19391. So we're noting that it is a multi-agency approach to understanding the spill regime.

19392. **MS. THORKELSON:** So then the Department of Fisheries and Oceans, I understand your -- that -- and maybe this is just a question that you're -- because you represent one branch of the Department of Fisheries but is the -- we can find nowhere in this submission where the Department of Fisheries and Oceans has provided an assessment of the impacts on the commercial fisheries of a malfunction or accident.

19393. We can't find anything to do with a range or any advice, a range of -- of impacts or any advice on that other than the EA appeared to have been done in a correct manner and that they provided interesting information.

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19394. Is there anywhere that they've provided alternate advice as to the impacts on the commercial fishery?

19395. As the mandated organization.

19396. **MS. BONNIE ANTCLIFFE:** We did not do an assessment of the impact on commercial fisheries.

19397. We did do an assessment related to fish and fish habitat impacts.

19398. **MS. THORKELSON:** Thank you.

--- (A short pause/Courte pause)

19399. **MS. THORKELSON:** Thank you.

19400. In endorsing Enbridge's risk assessment, did DFO do an analysis of recovery times of oil impacted species and effects on the commercial fisheries?

--- (A short pause/Courte pause)

19401. **MR. MICHAEL ENGELSJORD:** The only information that we provided was in our response to one of the IRs.

19402. We've provided some information on the timeframes that we're aware of for recovery of -- or that killer whales and sea otters were affected, related to the Exxon Valdez oil spill.

19403. **MS. THORKELSON:** So in writing your submission, did you do any analysis on the recovery time -- of DFO's information on impacts of oil on fish and the recovery times it would take for our ability to get back into a fishery?

--- (A short pause/Courte pause)

19404. **MR. MICHAEL ENGELSJORD:** I hope I remember your question but DFO didn't do an analysis of the effects on commercial fisheries and so we also didn't do an analysis of recovery times in the event that there was an accident that affected a commercial fishery or those stocks.

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19405. **MS. THORKELSON:** Thank you.

19406. I'm going back to the CEAA and is -- would you agree that the *Canadian Environmental Assessment Act* is clear that an environmental effect includes the effect of any change to the health and -- to health and socio-economic conditions?

19407. **MR. MICHAEL ENGELSJORD:** We don't feel it would be useful for DFO to comment on that.

19408. We're not here to interpret the *Environmental Assessment Act*, we're here to provide our -- the expertise that we can.

19409. **MS. THORKELSON:** Thank you.

19410. In your review of the Project and as the mandated department regarding the sustainability of commercial fisheries, did DFO review the social and economic impacts of the Project on sustainable fisheries?

19411. **MS. BONNIE ANTCLIFFE:** No, we did not.

19412. **MS. THORKELSON:** Thank you.

19413. If DFO did not review the social and economic impacts with the idea of giving advice to the Panel, commenting to -- giving advice to the Panel, was there any department of the Canadian Government that did so?

--- (A short pause/Courte pause)

19414. **MR. MICHAEL ENGELSJORD:** Certainly, DFO did not and, as far as we know, no other federal department did either.

19415. **MS. THORKELSON:** Thank you very much.

19416. In light of DFO's mandate and responsibilities, is it sufficient that DFO offers no opinion on the impact of an oil spill on commercial fisheries or on the socio-economic condition -- or the impacts of oil on the socio-economic conditions of North Coast communities which are dependent on the commercial fishery?

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19417.           **MS. ANDERSON:** Madam Chair, if I might interject?
19418.           We're here to test the evidence that was filed by the Department and not evidence that was not filed and I wonder if it would be helpful to the witnesses if the questions could be redirected back to the evidence that they did file?
19419.           **MS. THORKELSON:** Madam Chair, the Department of Fisheries and Oceans' mandate -- which they have -- have said in their document, let alone what's on the webpage -- is that they're responsible for the development and implementing policies and programs. This is what they've said on Page 6 paragraph 5 of their submission.
19420.           Developing and implementing policies and programs in support of Canada's scientific, ecological, social and economic interests in oceans and fresh waters.
19421.           And I'm -- and I'm asking whether this submission was sufficient in -- is this submission sufficient or deficient in -- in that aspect?
19422.           And that goes to the -- commercial fishermen feel at a loss, Madam Chair, that we have no agency that's speaking on our behalf and we have a whole federal fisheries department that is not just a department of habitat.
19423.           And so, in light of these questions, all I'm asking is if it -- the Department feels that the Department representatives that the Department of Fisheries and Oceans has decided to send here today to answer the questions in this submission -- I'm asking them if they believe that it is sufficient?
19424.           If they believe that the -- in their representation, is it sufficient that DFO offers no opinion on the impacts of an oil spill on commercial fisheries or on the socio-economic impacts on North Coast communities.
19425.           **MS. ANDERSON:** Madam Chair, the evidence as filed was given, as you know, for the purpose of providing technical and specialist information to the Panel to assist the Panel with their assessment of the effects of the Project.
19426.           I think it unfair to ask one department in particular whether they think their own submission is sufficient. They've provided what they think they can with respect to their technical knowledge and advice and I think that's the end of



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the question with respect to the sufficiency of it.

--- (A short pause/Courte pause)

19427.           **THE CHAIRPERSON:** The Panel is finding this line of questioning useful and so we would like the witnesses to answer the question to the best of your ability.

19428.           **MS. BONNIE ANTCLIFFE:** Thank you. I'll start.

19429.           The Department of Fisheries and Oceans is responsible for the management of fisheries. And with respect to this Project, for the construction and operation, we reviewed the potential impacts on fish and fish habitat from that and our evidence states that we believe that the risk can be managed through mitigation, offsetting, monitoring and, in some cases, through research.

19430.           With respect to spills, DFO is not the federal lead for spills. We have provided some information in our evidence that we believe will be helpful in terms of looking at the overall effects and impacts on fisheries' resources.

19431.           However, again, the question around spills, it is a multi-agency approach and to fully get at the issues that you're asking, one needs to look at the information and the responsibilities of all of the federal agencies.

19432.           We provided specifics here related to fish and fish habitat.

19433.           **MS. THORKELSON:** Thank you.

19434.           I'm going to switch horses for a moment. We're getting close to being done here. I'm sure. I want you to thank you very much for your responses so far.

19435.           Can we turn to E9-21-08? And it's page 45 and it's the conclusions there.

19436.           Do you want to take a minute to look at those?

19437.           **THE CHAIRPERSON:** Ms. Thorkelson, is there a particular paragraph or would you like the witnesses to look at the entire conclusion section?

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19438.           **MS. THORKELSON:** If they can just briefly -- I'm not looking at every sentence in this one. So just have a brief idea of what it's about.

--- (A short pause/Courte pause)

19439.           **MS. THORKELSON:** Okay, so DFO says in this response that if there was a spill, the extent of impacts on fish would depend on many variables. The recovery of the ecosystem would also be variable.

19440.           Is that correct? Is that a fair summary?

19441.           **MS. BONNIE ANTCLIFFE:** Yes, it is.

19442.           **MS. THORKELSON:** Thank you.

19443.           Would you describe the salmon returns in the last decade difficult to predict?

19444.           **MR. DAVID PEACOCK:** Dave Peacock here. Yes, that's true.

19445.           **MS. THORKELSON:** Would you characterize the salmon returns on the North Coast as being subject to very large swings, which would be differing from the previous two to three decades?

19446.           **MR. DAVID PEACOCK:** Yes, there has been that pattern over the past decade.

19447.           **MS. THORKELSON:** For example, can you give us a run size estimate for pink salmon in 1999 and then pink salmon in 2001, in Area 6?

19448.           The return run size estimate -- a guess.

19449.           **MR. DAVID PEACOCK:** I don't have those in my head but I expect you do.

--- (Laughter/Rires)

19450.           **MS. THORKELSON:** In 1999, would you remember, Mr. Peacock, that that was the largest run in recorded history of pink salmon returning to Area 6?

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19451.           **MR. DAVID PEACOCK:** Yes, it was -- if “recent” is the last decade then that would be true, yeah.

19452.           **MS. THORKELSON:** Thank you.

19453.           And, in 2001, was there a fishery on -- in 2001, which would have been the return year for those pink salmon, was there a fishery at all?

19454.           **MR. DAVID PEACOCK:** Did you mean 2011, Joy, perhaps?

19455.           **MS. THORKELSON:** Yes, I do. Thank you, Dave.

19456.           **MR. DAVID PEACOCK:** That is true then, yeah.

19457.           **MS. THORKELSON:** So we went from what was approximately six million catch in 1999 down to zero catch in 2011.

19458.           Would that be a fair estimate?

19459.           **MR. DAVID PEACOCK:** Yes.

19460.           **MS. THORKELSON:** Does DFO have a theory that tries to explain the much greater variations in run sizes that we seem to be experiencing in this decade?

19461.           **MR. DAVID PEACOCK:** There’s a number of theories but we mainly used the term “variation” in ocean survival and we don’t have information directly for that stock.

19462.           But we’re seeing these large swings in ocean survival across many species and in many areas in Northern B.C.

19463.           **MS. THORKELSON:** Thank you.

19464.           Can the run size of salmon or herring be accurately predicted on an annual basis?

19465.           **MR. DAVID PEACOCK:** I can’t speak to herring but the predictabilities for salmon are poor.

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19466.           **MS. THORKELSON:** Is there anybody that can speak to herring?
19467.           Mr. Groves?
19468.           **MR. STEVEN GROVES:** I could maybe just give you -- I'm not involved with the stock assessment of it but I do know that it can be variable but I would say less variable than salmon.
19469.           **MS. THORKELSON:** How is the stock size of groundfish -- such as halibut, rock fish and other groundfish -- determined?
19470.           And is that determination of stock size exact?
19471.           **MR. STEVEN GROVES:** Essentially, there's no groundfish stock assessment expertise here. Sorry.
19472.           **MS. THORKELSON:** And do you have -- does anybody here have expertise on the determination of the abundance -- how the department determines the abundance of crabs, prawn, shrimp, geoducks, urchins or clams of any kind?
19473.           **MR. STEVEN GROVES:** No, I'd say that we don't have that either. Sorry.
19474.           **MS. THORKELSON:** Okay. Thank you.
19475.           So we get back to herring and maybe a bit of salmon. What would the range of certainty be when you might have -- when determining the size of a -- the predicted size of a run?
19476.           And maybe small, large, very large, medium.
19477.           **MR. DAVID PEACOCK:** Certainly, there's a lot of variation and I think your example of the pink salmon in the years you chose would illustrate the -- an example of great variation.
19478.           Some of them are less variable but it's large and it's been, as you've pointed out, a significant increase over the last decade.
19479.           **MS. THORKELSON:** If stocks under normal conditions or in the

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present circumstances and without any spill are so variable in size and it is so difficult to determine the stock numbers and location, how would DFO know when the stock is recovered?

19480. **MR. DAVID PEACOCK:** Dave Peacock here.

19481. The metrics of recovery are against benchmarks of status, and so without -- we would use those same metrics without regard to what the cause of any changes in abundance were. So we would still -- we wouldn't be able to partition out the reasons for any decline or the -- what was inhibiting responses, but if, for instance, if we have an escapement target we know when that's met so that's how we would measure recovery.

19482. **MS. THORKELSON:** So what you're saying is that it would be difficult for DFO to determine which variable is retarding the recovery of the stock?

19483. **MR. DAVID PEACOCK:** Yes, that's true.

19484. **MS. THORKELSON:** Yesterday one of the responses from one of DFO panel members was that Enbridge was going to -- is that their -- whether it was Enbridge or not, and I don't have -- I should have maybe looked it up this morning, but it was regarding that there was going to be compensation for any injuries in the commercial fishery. And in the event of an oil spill, with the uncertainties we talked about, how difficult would it be to determine the impacts of a spill?

--- (A short pause/Courte pause)

19485. **MR. DAVID PEACOCK:** Can you just repeat the question for me

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19486. **MS. THORKELSON:** Sure.

19487. **MR. DAVID PEACOCK:** --- just to make sure I respond appropriately?

19488. **MS. THORKELSON:** In the event of the oil spill, with the uncertainties we just talked about, how difficult would it be to determine the impacts of a spill on the commercial fishery?

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19489.           **MR. DAVID PEACOCK:** Again, just from the biological side, it would be very difficult for us to partition out the -- since we have such a variation in both freshwater survival and ocean it would be very challenging for us.

19490.           **MS. THORKELSON:** Thank you.

19491.           **MR. THOMAS KING:** Tom King here. I just wanted to add to that.

19492.           In terms of the chemistry side of things, if there is a spill and we can measure certain chemicals in the fish that can give us an indication that the fish has been impacted. So there is a way to basically look at it from a chemical point of view so that we can have an idea that if these fish are uptaking these chemicals and we do toxicological data or biological affects data then we can estimate that there is an impact to the fisheries.

19493.           **MS. THORKELSON:** Thank you.

19494.           And, Mr. King, I'm sure you're very aware of the 20-year long struggle with data in Alaska. Is that correct?

19495.           **MR. THOMAS KING:** Myself no, I'm not familiar with that.

19496.           **MS. THORKELSON:** Would it surprise you if I told you that the testimony that -- from Enbridge experts that they brought from Alaska was that there was a huge variation in -- between government and industry scientists on the impacts of oil on fish in Alaska? Would that surprise you?

19497.           **MR. THOMAS KING:** Could you repeat the question please?

19498.           **MS. THORKELSON:** That's always a trick that you can use when I don't have it written down. I should pretend I do.

--- (Laughter/Rires)

19499.           **MS. THORKELSON:** Would it surprise you that Enbridge testified -- Enbridge experts testified that there was a great deal of variety in what science -- between the conclusions of Enbridge -- sorry -- the conclusions of oil scientists by Exxon and government scientists, scientists that were responsible to Alaska fish and game?

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19500.           **MR. THOMAS KING:** So, if I understand the question correctly, you're saying that there's a difference of opinion between Enbridge scientists and government scientists?

19501.           **MS. THORKELSON:** In that case it was Exxon scientists sorry.

19502.           **MR. THOMAS KING:** Exxon scientists?

19503.           **MS. THORKELSON:** Yes.

19504.           **MR. THOMAS KING:** Well, all I can say to that extent, if the research is done and it's peer reviewed and published, then you tend to follow that path and the methodologies that are in place and you look for commonality between scientists to make a final decision.

19505.           I am surprised if there is a difference of opinion between those particular scientists and, say, scientists from DFO, if that's what you're referring to.

19506.           **MS. THORKELSON:** No, it was really whether you're familiar with that. I think there -- it may be interesting to have a look at that.

19507.           **MR. THOMAS KING:** Not in its entirety, no.

19508.           **MS. THORKELSON:** Thank you.

19509.           Just a couple of final questions. I have one last question, and this is regarding your submission, which the totality of the submission, and this is really the nub of it for our membership. Are you really telling the Panel and our members that they have nothing to fear regarding dilbit tanker traffic from Kitimat -- to and from Kitimat?

--- (A short pause/Courte pause)

19510.           **MS. BONNIE ANTCLIFFE:** With respect to spills and the effects of spills on fish, fish habitat, or fisheries, what we've noted is that there are multiple federal agencies who provide information related through their authorities for understanding those effects. Likelihood of a spill, fate and behaviour and environmental effects, DFO is not the lead agency for all of those components.

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19511. We also note that the Government of Canada has provided recommendations for additional information that would be required to provide a better understanding of the issues that you raised with respect to effects of spills on fish or fish habitat or fisheries.

19512. **MS. THORKELSON:** Thank you.

19513. And in your list of responsibilities of other agencies, you didn't mention that there was another agency that was responsible for the sustainable fisheries.

19514. So we couldn't expect advice from another department regarding the impacts of tanker traffic from Kitimat on sustainable fisheries; could we?

--- (A short pause/Courte pause)

19515. **MS. BONNIE ANTCLIFFE:** Okay, so Department of Fisheries and Oceans is responsible for sustainable fisheries.

19516. In this environmental assessment, we have provided information with respect to impacts on fish in fish habitat which implies fisheries. Other agencies would not be responsible for sustainable fisheries, however, their mandates and responsibilities, what they provide, would help with the overall understanding of the potential impacts of a spill on fish, fish habitat or fisheries.

19517. Their areas would be focused on those we've noted already -- again, likelihood of a spill, fate and effects and other considerations -- but it is the Department of Fisheries and Oceans who is responsible for sustainable fisheries.

19518. **MS. THORKELSON:** And still, there's no comment to make whether our members have nothing to fear regarding dilbit tanker traffic from Kitimat?

19519. **MS. BONNIE ANTCLIFFE:** Again, I can't comment on that type of question.

19520. As we noted, there are a number of factors to consider -- likelihood of a spill being one --and, again, that's not DFO's responsibility among the other factors that we've talked about.



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19521.                So to provide a comprehensive view on that, there are many -- many components that are required. So I can't comment on the question.

19522.                **MS. THORKELSON:** Okay, I want to thank you very much. That concludes my questioning.

19523.                I want to thank you very much. I'm sure it's been very difficult and I want to thank you. Again, I hold no disrespect and my questions weren't meant in any case to be disrespectful of the people who work for the department. Thank you.

19524.                Thank you, Madam Chair.

19525.                **THE CHAIRPERSON:** Thank you, Ms. Thorkelson.

19526.                So we'll go next to questions from legal counsel to the Joint Review Panel.

19527.                Maybe not, Mr. Roth, do you have questions?

--- (A short pause/Courte pause)

19528.                **MR. HUDSON:** Northern Gateway Counsel does have questions for this Panel.

19529.                **THE CHAIRPERSON:** My apologies, I had understood that they didn't.

19530.                **MR. ROTH:** Yeah ---

19531.                **MR. HUDSON:** That was my understanding as well.

--- (Laughter/Rires)

--- **EXAMINATION BY/INTERROGATOIRE PAR MR. ROTH:**

19532.                **MR. ROTH:** That was before Ms. Thorkelson finished her cross-examination.

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19533. I did advise it would be subject to what she has to raise and she's a very good cross-examiner and sometimes we, in cross-examination, don't make things real clear and I want to see if I could clarify some things with the Panel, and mainly questions for DFO.
19534. If we could go to your report which is Exhibit E9-6-13 starting at Adobe page 38?
19535. Now this section of the report is titled "Your Summary and Conclusions"; correct?
19536. **MS. BONNIE ANTCLIFFE:** That's correct.
19537. **MR. ROTH:** And your methodology, you go through a number of headings. The first is "Freshwater Fish and Fish Habitat Risk Assessment".
19538. You give your summary and conclusions there; correct?
19539. **MS. BONNIE ANTCLIFFE:** That's correct.
19540. **MR. ROTH:** Okay, the next section is "Marine Fish and Fish Habitat Risk Assessment" and you give your overall conclusions under that heading; correct?
19541. **MS. BONNIE ANTCLIFFE:** That's correct.
19542. **MR. ROTH:** Okay.
19543. We go over to "Accidents and Malfunctions in Impacts on Fisheries Resources" and you give your conclusions with respect to that aspect of your report there; correct?
19544. **MS. BONNIE ANTCLIFFE:** That's correct.
19545. **MR. ROTH:** Okay.
19546. Then, you go on to "Potential Cumulative Impacts" and give your conclusions there; correct?

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19547.           **MS. BONNIE ANTCLIFFE:** That's correct.
19548.           **MR. ROTH:** And then, with respect to "Potential Impacts on Species at Risk", you have your conclusions there; correct?
19549.           **MS. BONNIE ANTCLIFFE:** That's correct.
19550.           **MR. ROTH:** Okay ---
19551.           **THE CHAIRPERSON:** Mr. Roth, I'm just struggling to understand why you're taking us through the report to this extent. It's on the record.
19552.           **MR. ROTH:** Right, indeed, so we discussed, if we go back to "Accidents and Malfunctions Impacts on Fisheries", I'm not going to go through paragraph 147 because it essentially repeats paragraph 124 that has been well canvassed by Ms. Thorkelson and others.
19553.           There were two other paragraphs below that, 148 and 149, where you talk about how the Proponent has given a general description of the baseline setting for fisheries and potential impacts from oil and bitumen and that there's commitment to a long-term monitoring plan to establish benchmarks and monitor effects of a spill -- should one occur -- over extended period of time and DFO is supportive of this commitment.
19554.           And then, you go on to talk about everything the Proponent has -- or summarize everything the Proponent has done by way of mitigation including vessel construction, safety standards et cetera; correct?
19555.           We haven't talked -- none of the intervenors' counsel cross-examined you on those paragraphs, but those are also things that you've relied on and come to conclusions on in your report under "Accidents and Malfunctions"; correct?
19556.           **MS. BONNIE ANTCLIFFE:** That's correct.
19557.           **MR. ROTH:** Okay.
19558.           Now, if we get to the bottom line, the bottom line is a summary, correct, which is at -- the very last thing in your report at Adobe page 40 and you say:

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*“In summary, DFO is of the view that [this] [...] risk posed by the Project to fish and fish habitat in [...] freshwater and marine environments can be managed by the Proponent through appropriate mitigation and compensation measures. The Department has prepared this submission, which includes a number of recommendations, to assist the Panel in [...] consideration of the Project.”*

19559.            Now, that is a summary of all those prior sections, correct, including -- that's the bottom line, including the assessment of accidents and malfunctions.

19560.            Nowhere in that summary are those comments limited to construction and operations; correct?

19561.            There's nothing in there that says that summary is limited to construction and operations; correct?

19562.            **MS. BONNIE ANTCLIFFE:** That's correct, within the context of DFO's areas of responsibilities.

19563.            **MR. ROTH:** Those are my questions, thank you very much.

19564.            **THE CHAIRPERSON:** Thank you, Mr. Roth.

19565.            Mr. Hudson.

--- (A short pause/Courte pause)

--- **EXAMINATION BY/INTERROGATOIRE PAR MR. HUDSON:**

19566.            **MR. HUDSON:** Good morning, witnesses.

19567.            I'm Andrew Hudson, Counsel for the Joint Review Panel. I have with me Ms. Meier, on my right, who knows a lot about whales and Ms. Germain, on my left, who knows a lot about fish. They're both quite smart. Me, not quite so much. So when I ask dumb questions about fish or whales, don't blame them as being poor teachers. You can blame me as being a slow learner.

19568.            Now, generally, during my questioning I'll refer to various exhibits or

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transcripts. I won't generally pull them up on the screen, but if I don't and you wish that I would have in order to give a better answer, don't be shy. Just ask. I've got the references there and we can have them pulled up. Ms. Niro is all primed, ready to do so if it's needed.

19569. Now, I'll start off by referring back to some questioning that happened on Monday in response to questions asked by Mr. Janes for the Gitxaala Nation. At that time, both Dr. Hollebone and Ms. Maclean stated that Environment Canada was not yet satisfied -- clarify that word if I haven't got it right -- with the suspended sediment data that Northern Gateway has provided in the confined channel assessment area regarding the potential interaction with spilled oil.

19570. Do I have that right?

19571. **MS. LAURA MACLEAN:** That confirms my recollection of the exchange we did have on Monday, yes.

19572. **MR. HUDSON:** Okay. And that's the same for you, Dr. Hollebone?

19573. **DR. BRUCE HOLLEBONE:** That's a fair characterization, yes.

19574. **MR. HUDSON:** Now, I asked some questions about this of Northern Gateway back on February 26<sup>th</sup>, and I'll come back to that in a minute and probably let you see what those answers were. But before then, I'd like to bring up Exhibit B164-13, which was Northern Gateway's response to Environment Canada's detailed marine modelling comments. And I'd like you to go to pages 57 and 58.

19575. And if you could show the bottom of that page and see if you can catch the top of the next page. Oh, that's pretty close. Well, we could -- if we could move the picture of me out of the way. I'd be happy generally, but more specifically here, too.

19576. So in this -- if you've had a chance to look at that briefly, what it -- this states generally that the total suspended solids levelled in the CCAA are very low, ranging from about 1 milligram per litre to 10 milligrams per litre in certain areas with concentrations reaching as high as 20 milligrams per litre in some areas during the freshet.

19577. And in light of this and other evidence regarding the amount and size

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of particulates required to sink larger parcels of oil and emissions, Northern Gateway stated that oil would only be likely to sink in sandy nearshore areas.

19578.           And I'd like you -- to bring you to the transcript, at Volume 145. That's the one of February 26<sup>th</sup> that I mentioned. And look at lines 18009, which is my question, and parts of the answer, 18012 to 18014.

19579.           And when you're ready, you can just ask Ms. Niro to scroll down through 18014.

--- (A short pause/Courte pause)

19580.           **MR. HUDSON:** So are you aware of that exchange and do you have any additional comments on Gateway's reply set out in B164-13 with regard to sediment levels in the combined -- confined channel assessment area?

--- (A short pause/Courte pause)

19581.           **DR. BRUCE HOLLEBONE:** Okay. We actually have a recognized expert on sediment interactions here in Dr. Ali Khelifa, so I believe I'll let him answer the question. Okay?

19582.           **MR. HUDSON:** That would be fine.

19583.           **DR. ALI KHELIFA:** Good morning. There are different aspects to the problem here, but let's start with the data -- available data in terms of SPM concentration in the study area.

19584.           There is some -- there was some study in the early eighties by Dr. MacDonald. He's still working with IOS. And there was another one in the nineties as well. Enbridge did some work as well. But I personally haven't seen a total investigation of what's available in terms of concentration; in other words, the spatial and temporal distribution of the concentration.

19585.           So it's too early to say it's that much or less. It varies with time. It varies with the flooding conditions and so on. There is a need for further investigation from that perspective.

19586.           Second part of the question is the availability and type of sediment to make the oil sinking. This is a complex process. Yes, we did follow the

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transcript. We did follow the answer from Enbridge to this kind of questions. We have been doing also interaction for more than 10 years now, research.

19587.           There is something very important to understand. Before to enhance this oil -- oil -- there are different type of oil sediment interaction. There is oil that is under the form of oil droplets in the water column that interact with suspended particulate materials, SPM. That's in the water column. And these SPM usually are very fine.
19588.           The second process is the interaction with oil -- of oil with bottom sediment. And this would not happen in 200 metres of water column in shallow water system.
19589.           The third process is the interaction of oil with the shoreline sediment when it gets to the shore. So there are three different processes.
19590.           If we go back to the first one, which is the oil sediment interaction in the water column, there is -- you need to have a prerequisite process in order to make it happen. There is a need to transform the slick from slick to small droplets first, and that's a physical process controlled mainly by turbulence or by the intensity of mixing, usually induced by weights.
19591.           So first transform that slick to small droplets. These small droplets are getting -- become small and when they become small, they don't need that much sediment of SPM to sink. That's the rationale. If the slicks, they are the slick, a big slick, you need a huge amount for that sediment to make it sinking. That's the difference.
19592.           One important aspect that one should keep in mind as well is the density of this SPM. It's about 2.5 to 3 times the density of oil.
19593.           Hope this answers your question.
19594.           **MR. HUDSON:** Very helpful. Could you describe the -- describe further the type of suspended sediment data that Environment Canada feels is necessary? I think I understand why but what's the kind of data that you still think would be good?
19595.           **DR. ALI KHELIFA:** So again, based on my previous description, we said okay if we focus on the first process, which is the interaction of small oil

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droplets, assuming that the oil is dispersed already in small droplets, and the interaction with the SPM, the first information we need to know is how much sediment is out there, what's the concentration, what's the distribution in different locations and different seasons as well.

19596. So to have a good monitoring system out there that track back the information and gather enough information would be very helpful. But before that I would -- I think can go back and do some homework and collect the information that exist already. That's what we were referring to.

19597. The other parameter as well that I think maybe it's worth to mention here, I don't want to go into details but if we want to go, is -- is this dilbit going to go -- is it easily to transform this dilbit to small droplets to have the system started? That's another story where my colleague is expert in the fate and behaviour side.

19598. **MS. LAURA MACLEAN:** So -- and if I may just endeavour to summarize my colleagues response I think the department views this as a complex area. It's linked to the spill modelling recommendations that we've made.

19599. Sediments would be one of many important inputs to the work that we've suggested would be appropriately conducted under the direction of the Science Advisory Committee.

19600. And certainly it's a parameter, sediments are a parameter that could be added, if they're not already there, as part of the marine environmental effects monitoring program that Northern Gateway, we understand, has committed to.

19601. **MR. HUDSON:** Thank you.

19602. What Northern Gateway had said was that suspended sediment levels in the area are typically very low. And I take it what you're saying is you would like further information to confirm that or can you agree that they are -- they are low?

19603. **DR. ALI KHELIFA:** When we say the sediment concentration in the area, it's let's say 1 -- less than 1 milligrams per litre or less than 10 milligrams per litre. Where we are talking about, the area is huge -- is big.

19604. So this is -- this is space dependent. And -- and that's what we need



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from a modelling perspective is to have spatial distribution of this process, not only in space but in time as well.

19605. In January and in July perhaps the process is not the same. You don't have the same concentration -- not the same flooding and so on. There are many parameters that enter into play here.

19606. I have -- what I have seen from the data that I said I reviewed again there are in some circumstances the concentration are higher than that. But in other cases they are lower.

19607. **MR. HUDSON:** Thank you.

19608. Continuing on, Mr. King, on Monday, in response to questioning from Mr. McCormick for the Haisla Nation, you stated that DFO did not yet have an understanding as to whether diluted bitumen proposed to be shipped by the project would sink or float.

19609. I suspect that that follows somewhat from what we've just been talking about. But did I understand that correctly? And then I want to ask you ---

19610. **MR. THOMAS KING:** That is correct.

19611. **MR. HUDSON:** --- what -- what you mean by sinking or floating?

19612. **MR. THOMAS KING:** Well, from -- a lot of questions have been raised whether or not if there was a dilbit spill and there was weathering processes associated with it, such as evaporation or photo oxidation, or sedimentation, that there is the potential for it to sink and we don't -- we have not conducted the research to determine that yet.

19613. **MR. HUDSON:** I -- but when you say sink, what do you mean? We know that it can be suspended in the water column ---

19614. **MR. THOMAS KING:** I -- we were -- we're referring to the fact that if it had reached a density greater than water it would sink.

19615. **MR. HUDSON:** And nothing in the discussion up until now has clarified that in your mind?

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19616. **MR. THOMAS KING:** No.

19617. **MR. HUDSON:** Now, I'm going to talk a little bit about fish. In DFO's written evidence -- and I don't think we need to go there -- it states:

*"DFO understands that the Proponent is currently developing a conceptual marine habitat compensation plan that the Proponent will improve through discussion with DFO and participating Aboriginal groups." (As read)*

19618. It says early in 2012. And then in -- in July, on July 7<sup>th</sup>, 2012, Northern Gateway submitted a conceptual marine fish and fish habitat compensation plan. It's Exhibit B80-14 if you need it to be brought up, but I suspect you don't with regard to the questions that I have with regard to it.

19619. And these are the questions. Has DFO met with the Proponent to discuss this marine compensation plan?

19620. **MR. MICHAEL ENGELSJORD:** We met with the Proponent once since that plan became available. It was just an opportunity for the Proponent to walk us through that and present it to us. There was not that much discussion really.

19621. **MR. HUDSON:** Does DFO have any outstanding concerns with the conceptual plan that the Proponent submitted?

19622. **MR. MICHAEL ENGELSJORD:** No we don't.

19623. **MR. HUDSON:** As I understand it the plan presents a number of options for compensation. In DFO's view are these appropriate compensation options?

19624. **MR. MICHAEL ENGELSJORD:** The options they present the types of enhancements to fish habitat are things that we commonly see done.

19625. **MR. HUDSON:** Are there any additional options that the Proponent should be considering?

19626. **MR. MICHAEL ENGELSJORD:** Not that we're aware of. That's kind of in the Proponent's court though, for them to propose.

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19627. **MR. HUDSON:** Now, in your own written evidence, that's Exhibit E9-6-13 you state that:

*"Several factors are taken into consideration when determining the appropriate amount of compensation. Higher ratios (greater than 1:1) are justified on the basis of uncertainty of success, variance in the quality of the fish habitat being replaced and recognition of the lag time required for the new habitat to become functional."*

19628. Has DFO give any thoughts to what ratios would be appropriate for the options proposed by Northern Gateway, taking into account the timeframe of the project?

19629. **MR. MICHAEL ENGELSJORD:** I would -- I would say we haven't put our minds to that yet. That those kind of considerations will depend on the final details of what actually the Proponent is going to impact in terms of habitat and what they actually -- of those options that they've identified what they actually choose and then move forward as a proposal, as their final compensation package.

19630. That's when those considerations you've identified there for us to consider whether or not we think this is achieving our policy goal would be taken into account.

19631. **MR. HUDSON:** Thank you.

--- (A short pause/Courte pause)

19632. **MR. HUDSON:** I now just have a couple of questions with regard to the marine environment -- environmental effects monitoring program.

19633. Northern Gateway submitted a draft framework of this in response to the Government of Canada IR 2.66, and that draft framework is found at Exhibit B46-38. Again, I don't think we need to go there.

19634. Has DFO reviewed the proposed framework?

19635. **MR. MICHAEL ENGELSJORD:** Not in any detail.

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19636.           **MR. HUDSON:** And I presume you haven't discussed it with the Proponent then?

19637.           **MR. MICHAEL ENGELSJORD:** That's right.

19638.           **MR. HUDSON:** And I presume it's too early to say whether you have any concerns with regard to it?

19639.           **MR. MICHAEL ENGELSJORD:** I would say that's fair, yeah.

19640.           **MR. HUDSON:** On page 10 of the draft framework, it states that:

*"Data will be collected for six years (approximately three years prior to commencement of operations and three years thereafter)."*

19641.           And there's further details with regard to that.

19642.           In -- certainly, you stated in response to a Haisla IR that, from a scientific and monitoring perspective, DFO would recommend that a monitoring plan be -- plan to establish a benchmark or baseline be started as early as possible and continue for the life of the Project.

19643.           And maybe we could go to this, it's the December 15 transcript. It's Volume 116, starting on line 17183. And there's a comment there from Mr. Green and then, later on, Mr. Anderson. So it's 17183 and then 17187.

19644.           I'll just let you have a chance to read that through to the conclusion of what Mr. Anderson said on the next page.

--- (A short pause/Courte pause)

19645.           **MR. HUDSON:** Can you scroll down there so that -- just that first paragraph, the 17187, is sufficient.

19646.           Is DFO satisfied with the commitment Northern Gateway has made with respect to the monitoring timeframe?

19647.           **MR. MICHAEL ENGELSJORD:** Could you just clarify?

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19648. Is this answer given in the context of monitoring with respect to marine mammals?

--- (A short pause/Courte pause)

19649. **MR. HUDSON:** No, it's for the whole Project, is what I'm told.

--- (A short pause/Courte pause)

19650. **MR. HUDSON:** I think I could throw it back to you. In my question, I said:

*"Do you have any response to DFO's recommendation to continuing monitoring for the life of the Project?"*

19651. So it arose from your recommendation.

19652. **DR. CAROLINE CAZA:** Sorry, excuse me. This is Caroline Caza from Environment Canada.

19653. This may be a conversation in response to an IR that relates to Environment Canada, so if you would like to pose your question to us, we may be able to provide you with some information.

19654. **MR. HUDSON:** Consider it so posed.

19655. **DR. CAROLINE CAZA:** Could you repeat the question, please?

19656. **MR. HUDSON:** Yes, I can.

--- (Laughter/Rires)

19657. **MR. HUDSON:** Is Environment Canada satisfied with the commitment Northern Gateway has made with respect to the monitoring timeframe?

--- (A short pause/Courte pause)

19658. **MS. CORAL deSHIELD:** This is Coral deShield, Environment

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Canada.

19659.           What we had discussed or what we had recommended was three years of baseline monitoring pre-construction, three years post-construction monitoring and, as well, we recommended that there be continual monitoring.

19660.           We did see this -- you know, the six years plus the continual monitoring as being really critical -- really a critical component for -- as part of our recommendation.

19661.           Yeah, and just to confirm that our recommendations were in the context of our mandate regarding migratory birds.

19662.           **MR. HUDSON:** Thank you.

--- (A short pause/Courte pause)

19663.           **MS. CORAL deSHIELD:** And the monitoring would include things beyond marine birds, but that would be relevant to marine bird populations, including contaminants and prey.

19664.           **MR. HUDSON:** Thank you.

19665.           I'm now going to move on to marine mammals. If I could go to DFO's written evidence at Exhibit D9-47-2 at page 6?

19666.           And I think if that first paragraph -- I would like you to start about six lines down where it says:

*"Where mitigation measures do not fully mitigate ..."*

19667.           If you could just read that down to the end.

--- (A short pause/Courte pause)

19668.           **MR. HUDSON:** Bearing that in mind, DFO stated in Exhibit E9-2-1 -- and I don't think we need to bring this up -- it's your Information Request number 1.22 to Northern Gateway that says:

*"Section 10 ..."*

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19669. Talking about *Species at Risk Act*:

*"...states that residual environmental effects of marine-related transportation might lead to changes in the distribution and abundance of some marine mammals within the confined channel assessment area, but are not expected to affect the long-term viability of marine mammals at population level[s]."*

19670. Yeah, it was Section 10 of Northern Gateway's evidence.

19671. So they're not expected to affect the long-term viability of marine mammals at population levels.

19672. Then, you state:

*"The Species at Risk Act prohibits impacts to listed species. Using only population level consideration is not appropriate for species listed under the Act."*

19673. And so my question is to get some comment with regard to the discussion of allowable harm that was in the -- that's on the exhibit that's there, and this suggestion that population level considerations are not appropriate. My understanding is allowable harm means that there will be some effects on individuals?

19674. **MS. TRACEY SANDGATHE:** It's Tracey Sandgathe from DFO.

19675. Perhaps you could bring up that passage that you referred to about population impacts or levels.

19676. **MR. HUDSON:** Exhibit E9-2-1, Ms. Niro, at page 26, and it's number two there.

--- (A short pause/Courte pause)

19677. **DR. JOHN FORD:** It's John Ford here with DFO.

19678. In interpreting this information request with respect to allowable harm in terms of the impacts that are suggested here, that the transportation may lead to

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changes in the distribution and abundance of some marine mammals, this would refer to a behavioural response that may cause displacement of individuals from the affected area.

19679. And it, I think in this case, is not intended to refer to mortalities that would result from the activities, and in that sense it wouldn't be considered allowable harm in terms of the potential biological removal that I was referring to yesterday which is based on mortalities.

19680. And my colleague, Ms. Sandgathe, will speak more to the SARA policy based on the interpretation of allowable harm and permitting.

19681. **MS. TRACEY SANDGATHE:** Tracey Sandgathe for DFO.

19682. So when we talk about issuing permits under Section 73 of the *Species at Risk Act*, there are a number of preconditions and our -- the previous exhibit refer to the one that indicates that you cannot have jeopardy to the survival or recovery of a species. That's one of the preconditions that you need to satisfy before a permit can be issued under a *Species at Risk Act* for killing, harming an individual of a species that's been listed as endangered or threatened.

19683. So the allowable harm estimate helps DFO to make that assessment of whether a particular activity will result in the mortality of a number of species that would be above the allowable harm limit, and in that case we would be unlikely to issue a permit, but if the activity results in mortality that's below the allowable harm limit then we might be more likely to issue a permit.

19684. **MR. HUDSON:** I think I understand.

19685. So, Dr. Ford, what is DFO's position with regard to behavioural matters -- now, I might not get this right -- that may affect individuals? And if you're having trouble understanding that I'll get some more advice from my friend on my right.

19686. **DR. JOHN FORD:** In the context of the marine transportation component of the project, behavioural effects on individuals would be primarily related to acoustic effects from underwater noise. This is an area that has received considerable study and discussion in the context of this proposed project as well as generally in terms of effects on cetaceans throughout the world in areas of intense anthropogenic noise.



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19687.           There's been a great deal of study attempting to quantify the levels at which underwater noise can physically affect these animals through impacts on their hearing ability, plus studies on the potential masking effects of sounds from -- noise from vessel traffic that could interfere with the animal's behaviour patterns, the functioning of their use of habitats where they rely on sound for coordination of feeding behaviours, navigation, making use of passive acoustic queues from the habitat that they may rely on. So these are really two different aspects of potential behavioural disturbance.

19688.           The levels of sound that are -- or noise from the tankers and tugs associated with this project that have been modelled by the Proponents are at levels that -- due to the reduced speed of the ships through the CCAA during the period when large whales like humpbacks and fin whales are expected to be present, are at a level that will potentially cause masking of the animals use of natural sounds.

19689.           We are not -- there is not enough information available to fully understand how masking effects may affect the animals' use of the habitat. We know that some cetacean -- most cetaceans are able to adapt to a certain level of anthropogenic noise because it is constantly present in most parts of the world's oceans today but fully understanding the point at which animals may be displaced from an area due to noise is something that we need to have further study to better understand in detail.

19690.           **MR. HUDSON:** I think I understand what you're saying, Dr. Ford. Again, referring you to the statement that we had up on the board -- on the screen before where you say that using only population level consideration is not appropriate for species listed under this Act and understanding what that means with regard to the comparison between population level and individual level.

19691.           **DR. JOHN FORD:** This may refer more to the details of interpreting the *Species at Risk Act* policy.

19692.           But in terms of the -- distinguishing between effects on individuals versus population, in my mind, this refers to the potential disturbance and potential physical effects on the hearing of individuals in the soundscape of the Project's shipping and that it would be important to consider the effects on the individual and to mitigate them to the best extent rather than simply assuming that, if a small number of individuals are affected in that area, it has no relevance

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to the population level concerns and could thus be ignored.

19693.           **MR. HUDSON:** Thank you.

19694.           Now, it's my understanding that identified critical habitat would be legally protected under SARA with regard to listed species, protected from destruction that may occur during construction or in the event of a spill or a malfunction.

19695.           Does DFO have an understanding of the meaning of critical habitat destruction in the context in the marine mammals and what's included in that?

19696.           **MS. TRACEY SANDGATHE:** So the *Species at Risk Act* provides a definition of critical habitat and that is the habitat that is necessary for the survival or recovery of a species and the Act states that it's a prohibition to destroy that critical habitat once it has been legally protected with an order under the *Species at Risk Act*.

19697.           So I think, you know, that's the context or the background and if you want to discuss the specifics of what it -- what impacts to critical habitat would be from the project on marine species, Dr. Ford will answer that part of the question.

19698.           **DR. JOHN FORD:** So for most cetaceans, those that are listed under the *Species at Risk Act* and for which critical habitat is being considered or has been officially designated, destruction of critical habitat would be activities that would interfere with the animal's function -- or the function of the habitat for the purposes that the animals are using it.

19699.           In the case of these species that are using the area of interest here, this is primarily feeding. And so it would be any activity that could interfere with the animal's foraging efficiency, cause displacement from the -- from important feeding sites within the habitat as a result of disturbance responses and these kinds of activities that would -- that could be considered to be affecting critical habitat.

19700.           At what point the habitat would be destroyed as it's stated or defined in the Act is somewhat difficult to quantify but these are the kinds of activities that could be considered to be harmful to critical habitat.

19701.           **MR. HUDSON:** So in your opinion, would -- could critical habitat

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for whales be destroyed by the cumulative effects of shipping noise?

19702.           **DR. JOHN FORD:** I think in a general sense, yes, it could be with the caveat that we don't have an understanding of what those noise levels might be that would lead to destruction of critical habitat.

19703.           But based on the assumption that some of these species have -- are not present in areas of especially intense human activity and noise, that there is a potential for displacement from habitats through those kinds of effects.

19704.           **MR. HUDSON:** And considering these types of effects, what's the role of protecting critical -- this type of critical habitat in preventing impacts on species listed under SARA?

19705.           **DR. JOHN FORD:** I'm not sure I understand your question.

19706.           Could you just say it again, please?

19707.           **MR. HUDSON:** Sure.

19708.           What's the role -- considering that the critical habitat could be destroyed by noise, what's the -- how do you protect against that effect?

19709.           And I guess you've mentioned research to find out what the noise levels that are -- that would cause the destruction.

19710.           **DR. JOHN FORD:** Certainly.

19711.           And there's a great deal of scientific effort being applied to this question internationally. There's been great strides in recent years but, at this point, we still are unable to fully understand the levels at which animals may suffer and critical habitat may be destroyed.

19712.           I think what -- in the interim, what is important is to focus on mitigation of noise from marine activities and this too is an emerging field in that there's great concern generally about projections for increased shipping traffic in the world's oceans, especially where it's concentrated in areas -- shipping lanes where animals -- where it coincides with important feeding habitat for animals.

19713.           There are mitigation techniques such as slowing a vessel down has a

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general quality of reducing the noise output. On the other hand, by slowing a vessel in half -- to half speed for example, it actually prolongs the exposure of individuals to noise -- albeit at a lower level -- and that is where our -- where issues like masking of important sounds in the animal's habitat may not be fully mitigated because of the temporal extension of the noise, if you like.

19714.                So there's many questions that remain to be answered before we can really understand the levels at which this -- these kinds of effects on the habitat would lead to its destruction.

19715.                **MR. HUDSON:** Now, I'd like to ask a question about potential biological removal calculations.

19716.                In DFR -- in Exhibit E9-4-1, DFO states the following and I don't think you need to bring it but, if you do, let me know. It's quite short:

*"In order to estimate limits to human induced mortality a [Potential Biological Removal] calculation is the established protocol. Published PBR estimates for certain species in [B.C.] are available and for others (including fin whales) can be calculated from published life history data."*

19717.                With regard to published PBRs, is DFO calculating the PBR for B.C. populations or Pacific populations?

19718.                **DR. JOHN FORD:** PBRs for Canadian waters would be calculated based on the estimated population size for the species in Canadian waters.

19719.                **MR. HUDSON:** And for what potential effects would PBR be used by DFO with regard to this Project?

19720.                **DR. JOHN FORD:** The PBR would be -- mortalities that would be related to PBR or would be assessed within the threshold of PBR would be those that are related to anthropogenic causes only, not natural mortality.

19721.                In the context of this proposal the -- the primary potential cause of mortalities to large whales would be through ship strike. And to the extent that those could be quantified, because they are difficult to -- to detect in many cases but to the extent that they could be detected, these would be applied towards the potential biological removal calculation.

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19722. **MR. HUDSON:** Would it apply to oil spills?

19723. **DR. JOHN FORD:** Yes.

19724. **MR. HUDSON:** Ms. Sandgathe, yesterday, you stated that humpback whale recovery plan is going through final approval and is not yet been posted on DFO's website. I think you stated there that it is -- there is draft critical habitat defined in this recovery strategy. Have I got that right?

19725. **MS. TRACEY SANDGATHE:** That is correct.

19726. **MR. HUDSON:** Now, in Exhibit E7-2-2 responding to JRP IR 1.2t, and I don't think we need to go there, you responded that humpback whales have been downgraded to "Special Concern" by COSEWIC. And that:

*"In light of this downgrade, DFO is reviewing next steps with respect to [...] classification of [...] species under [...] [SARA]..."*

19727. My question is in light of this downgrade from "Threatened" to "Special Concerned", does DFO anticipate having a recovery plan for humpback whales?

19728. **MS. TRACEY SANDGATHE:** We do anticipate moving forward with the recovery strategy and finalizing it for humpback whales. But keeping in mind that COSEWIC has downgraded its assessment, I guess you could call it, as a special concern species.

19729. So what's happening now is that we've received some additional information during some consultations that we had on the potential to change the listing from threatened to special concern. And a decision was made by the Government of Canada to have COSEWIC take a look at the species again and do another assessment.

19730. Dr. Ford might be able to add a little bit to this. There is some question about the DU's or the designated units or the population of humpback. So it's helpful to -- to think of these things as independent. You know, we're -- we're carrying on with the recovery strategy for humpback because it is currently listed as threatened but it might -- there might be a change to the listing in future.

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19731.           **MR. HUDSON:** Do you have anything to add, Dr. Ford?
19732.           **DR. JOHN FORD:** I could provide more details on the -- the reasons for -- for DFO referring the -- the down-listing back to COSEWIC for further consideration if you'd like?
19733.           **MR. HUDSON:** Sure.
19734.           **DR. JOHN FORD:** As Ms. Sandgathe noted that the -- there's a potential from new genetic data that the humpback whale population in Pacific Canadian waters may actually be composed of two discrete populations, one in the northern coast, one south of the north end of Vancouver Island, with different migratory destinations, genetic differences, and that functionally they may be potentially considered to be separate designatable units as per COSEWIC criteria.
19735.           If so, the population in each of these areas would be smaller and would have to be reconsidered for whether down-listing to special concern from threatened would be appropriate for those two potentially smaller populations.
19736.           So we're at a stage now in the process where COSEWIC is considering that request and will be preparing a reassessment of that question and then taking it to the general -- this is the marine mammal sub-committee, will be taking it to the general COSEWIC committee at a meeting in the fall.
19737.           **MR. HUDSON:** So is DFO involved in studies to determine whether there's a separate DU of genetically distinct humpback whales within the CCAA?
19738.           **DR. JOHN FORD:** Yes we are. We are collecting genetic samples through skin biopsies of humpback whales and photo identification of individuals throughout the coast.
19739.           But in particular, in the last year off Vancouver Island where the putative separation between these populations or sub-populations would be and in order to add more evidence for or against the validity of splitting the population or not.
19740.           **MR. HUDSON:** Again, I'm not going to bring this up but it's Exhibit E9-21-14, it's DFO's response to Northern Gateway IR 1.5, and it states:

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*“Fisheries and Oceans Canada, in collaboration with Transport Canada is conducting scientific studies in southern and northern resident killer whale critical habitat to determine if commercial vessel traffic may be disturbing/harming marine mammals and what the incremental contribution of commercial vessel traffic is to the underwater sound environment and to the overall risk of vessel strikes.”*

19741. Can DFO expand on the scope and status of these scientific studies regarding cumulative shipping noise?
19742. **DR. JOHN FORD:** Certainly. We are involved in a multi-phase study of the underwater noise created by shipping in both the critical habitat for southern resident killer whales off the southern end of Vancouver Island and off northeastern Vancouver Island through the deployment of long-term hydrophone listening recording stations at key locations within critical habitat to monitor noise levels. And then compare those levels to data on ship movements based on AIS data and from the Marine Traffic Control System.
19743. And so this --the long-term goal, this is -- we're in year three of that study recording continuously at these sites. And the goal of that is -- study is to try and classify the kinds of sounds and the levels in terms of sound energy from different kinds of shipping and shipping at different speeds to better appreciate and be able to model how those sound levels may -- may be increasing over a projected expansion of ports, the Port Metro Vancouver for example.
19744. We are also undertaking in year two, this year, a collaborative study with Transport Canada that involves aerial surveys using their marine reconnaissance aircraft to undertake systematic surveys for whale density, spatial density, and seasonal density in the shipping corridors, the shipping lanes in and out of Juan de Fuca Strait on -- off southern and southwestern Vancouver Island to then model the ship strike risk based on the -- the position of animals in different times of year and the amount of shipping that's going through.
19745. So those are two -- two somewhat related but distinct projects that we're involved with.
19746. **MR. HUDSON:** Do you have any plans to do similar research, for example, using hydrophones in other areas in British Columbia?

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19747.           **DR. JOHN FORD:** Yes we do. We've established a network of remote autonomous recording moorings at strategic sites along the whole coast and into offshore waters at Bowie Seamount, for example, to primarily look at the seasonal occurrence of vocalizing cetaceans from remote monitoring of their -- their sounds, but also to establish baseline data on noise levels in these areas that can be applied to models, again projecting how noise will increase in the future with respect to expanding shipping.

19748.           **MR. HUDSON:** This is my last question, and it relates to some reply evidence that Northern Gateway provided in Exhibit B83-2, and I don't think I need to bring it up.

19749.           And this is what Northern Gateway states:

*"Based on the vessel strike analysis, Northern Gateway would like to work with DFO and other parties to develop guidelines for large vessel operations in the CCAA and the OWA [open water area] that would apply to Northern Gateway as well as other vessel operations in the region." (As read)*

19750.           Is DFO developing guidelines for industry to address potential effects of large vessel operations on cetaceans?

19751.           **DR. JOHN FORD:** Issues regarding ship strike risk to cetaceans have really come to light mostly over the last five years in particular, with the discovery that certain species are more vulnerable to ship strike than was thought in the past. These are particularly fin whales and blue whales off the west coast.

19752.           In light of that increased awareness of the issue, we have been working with colleagues in better understanding through their studies in other areas like off the northeastern U.S. where ship strike risk with north Atlantic right whales is a very big issue to better understand what mitigation tools are available to reduce the chance of lethal ship strikes.

19753.           In terms of the -- in the context of the proposal before us, we have had informal discussions with the Proponents regarding their marine mammal protection plan, which involves a commitment to undertake studies on the potential effectiveness of passive acoustic monitoring infrared techniques to detect whales in the path of the tankers, these are untested and unproven and may not be effective in many cases but they are mitigation strategies that have been



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discussed in other regions and are being tested as well.

19754.           The Proponents also have committed to limiting vessel speed to under 10 knots during the period of the year when high densities of these vulnerable species would be found in the CCAA.

19755.           As I mentioned the other day, this reduction in speed would -- has been demonstrated to reduce the potential for lethal injuries from ship strikes. There is some uncertainty to what extent it reduces the vulnerability of the animals because not enough is known about the behavioural avoidance response of these animals to vessels at different speeds where they may be, for example, less inclined to remove themselves from the path of a ship bearing down on them if it is going slower with lower noise levels. So this is an area that requires further study.

19756.           And we are in DFO science actively involved with various attempts, beyond just this proposal, to be able to determine the reliability of these kinds of mitigation techniques for application, not just in this context, but with other proposals in other parts of Canadian waters.

19757.           **MR. HUDSON:** Thank you, Dr. Ford, and thank you, panel, for answering my questions. I have no more of them.

19758.           **THE CHAIRPERSON:** Thank you, Mr. Hudson.

19759.           Let's take our morning break and be back for 25 after 10 please.

19760.           Thank you.

--- Upon recessing at 10:10 a.m./L'audience est suspendue à 10h10

--- Upon resuming at 10:24 a.m./L'audience est reprise à 10h24

**BONNIE ANTCLIFFE: Resumed**

**MICHAEL ENGELSJORD: Resumed**

**BRAD FANOS: Resumed**

**JOHN FORD: Resumed**

**STEVEN GROVES: Resumed**

**THOMAS KING: Resumed**

**TRACEY SANDGATHE: Resumed**

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**CAROLINE CAZA: Resumed**  
**SEAN BOYD: Resumed**  
**CARL BROWN: Resumed**  
**CORAL deSHIELD: Resumed**  
**CHRIS DOYLE: Resumed**  
**DAN ESLER: Resumed**  
**GRANT HOGG: Resumed**  
**BRUCE HOLLEBONE: Resumed**  
**RICHARD HOLT: Resumed**  
**ALI KHELIFA: Resumed**  
**LAURA MACLEAN: Resumed**  
**KEN MORGAN: Resumed**  
**PATRICK O'HARA: Resumed**  
**BARRY SMITH: Resumed**  
**JENNIFER WILSON: Resumed**  
**XUEBIN ZHANG: Resumed**  
**JOHN CLARKE: Resumed**  
**HEATHER DETTMAN: Resumed**  
**DAVID PEACOCK: Resumed**

19761.           **THE CHAIRPERSON:** Thank you very much, everyone.

19762.           We'll go next to the questions from the panel.

19763.           Mr. Bateman?

**--- EXAMINATION BY/INTERROGATOIRE PAR MEMBER BATEMAN:**

19764.           **MEMBER BATEMAN:** Thank you for the witnesses attending and providing answers to questions. I have a question for Dr. Dettman. I thought I'd wait until you took a bite of your granola bar.

--- (Laughter/Rires)

19765.           **DR. HEATHER DETTMAN:** Two days you haven't asked a question.

--- (Laughter/Rires)

19766.           **MEMBER BATEMAN:** I am interested in increasing my

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understanding with respect to the characteristics of dilbit and a spill, and its properties with respect to water.

19767. I believe that yourself and the other witnesses here are familiar with Northern Gateway's evidence, particularly Mr. Belaro, and I am wanting to understand your view or perspective of that evidence.

19768. **DR. HEATHER DETTMAN:** So with my background, I am understanding the oil, as it's prepared to be transported in the pipeline, and so certainly the information that I have is relative to how it is in the pipeline and just, you know, if there was a leakage how it would be just as it leaves the pipeline.

19769. There are NEB regulations for the oil for it being transported in the pipelines -- in the transmission pipeline, which is what we're talking about here, that mean that it has to meet a specification of density, let's say, of 940 kilograms per cubic metre. And so as such, as it comes out of that pipeline initially it will float because it is lighter than water and so that is what it would do.

19770. And I guess what comes more in is with time and the conditions, how long it would take to maybe start to disperse or start to do some of these other behaviours and it starts going into the area of my colleague from Environment Canada. But that initial pipeline specification would have it that it would be floating.

19771. **MEMBER BATEMAN:** So if I've understood you correctly, that initially, in the case of a spill or release, its density is such that it will float if I ---

19772. **DR. HEATHER DETTMAN:** Yes.

19773. **MEMBER BATEMAN:** --- understood you correctly?

19774. **DR. HEATHER DETTMAN:** Yes.

19775. **MEMBER BATEMAN:** Then I'll direct my question to Drs. Hollebone, Khelifa and then Mr. King.

19776. I'm interested in understanding what happens next in terms of your view, basing that view against or on the evidence that the Panel has already heard from the experts tendered by Northern Gateway, including Mr. Belaro.

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19777. **DR. BRUCE HOLLEBONE:** I guess I'll start.

19778. The evidence that we've been provided to date gives us the starting part of the story of what this -- when it is spilled. I think from Dr. Dettman's work, from industry sources such as crudemonitor.ca that's been referenced in the evidence several times, and from some very preliminary work that our own lab has done, it's very clear that this is not a sinking oil as it comes out of the pipeline or the tanker.

19779. What is less clear to us in the evidence -- and I can walk through you specific examples if you wish or just put it in general terms. It's not clear to us what the rate of change of the product is in the environment, particularly compared to a regular crude oil. And it is not clear to us how quickly or what time windows may be available to recover the product. And we may get into that in the next panel a little bit more.

19780. The work that we've done to date indicates that sinking is not something that happens because of a single factor, such as evaporation, but as an interplay of a whole bunch of factors. So we have evaporation, we have photo oxidation, we have mixing with water to form emulsions or water/oil mixtures, and of course breakdown into droplets to form sediment particles. All of these things together determine the ultimate fate of the oil in the environment.

19781. I would also like to get away from the idea of the binary it floats or it sinks.

19782. From previous spills we've seen, there will be a portion that floats. There may be a portion that can sink. And the amount of that portion that -- which may sink would be of a concern -- of special concern for submerged or overwashed oil at that point.

19783. I'd also like to point out to the Panel that we're not talking about just the issue of the oil sinking from the surface to the bottom, we're also considering the idea that the water could linger in the water column. That's what we call "overwashed oil" or "neutrally buoyant oil", which again may become more available to the organisms that live there or to the ecosystems that the oil impacts.

19784. So there are all of these factors that we have to look at in terms of what the potential effects of the oil might be on the environment.

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19785.           **MEMBER BATEMAN:** You had indicated that you'd provide a general answer and then maybe look at some specific examples in the evidence.
19786.           I'd like you to do that.
19787.           **DR. BRUCE HOLLEBONE:** Okay.
19788.           If -- could I ask us to pull up some of the evidence then?
19789.           **MEMBER BATEMAN:** Certainly.
19790.           **DR. BRUCE HOLLEBONE:** Okay, I'm looking for B16-31, that's the SL Ross technical report on the oil properties and I'm looking for Figure 3-5 which is Adobe page 24.
19791.           Adobe page 24 here.
19792.           **THE REGULATORY OFFICER:** Oh, sorry.
19793.           **DR. BRUCE HOLLEBONE:** Please.
19794.           Okay, this is the -- just scroll down just a tiny bit. Actually, let's go back up -- sorry, just to make my point, let's go back up the page to the previous graph -- just a bit more, just a bit more -- one more, one more, sorry -- one more again.
- (Laughter/Rires)
19795.           **DR. BRUCE HOLLEBONE:** No, no, 3-1, I think, is the one I'm looking for.
19796.           Sorry, Figure 3-1, I think is the one I'm looking for. That one there, that's what I'm looking for.
19797.           Okay, this is an evaporation curve for a synthetic crude oil and you'll notice that it -- so this is sort of a typical -- in some ways, a typical crude oil that we'd expect to see during a spill. You'll notice that it -- what you're seeing here is the time of exposure versus the amounts of oil that has evaporated.
19798.           So right at the beginning of the spill, time zero, you're seeing no oil

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evaporated and you'll see that, over time, it can lose up to 45 percent of the oil by mass.

19799. But the other feature I'll point out to you is that notice that there's a long gradual curve in the middle of this slope. So this section here has a slow gradual curve; okay?

19800. Now, let's scroll down to Figure 3-5 on Adobe page 24. So this is a bit -- I'll have to beg the Panel's indulgence here -- this is a bit crunched compared to the other graph. So this is 24 hours whereas, on the other graph, 24 hours was right here. And what you're seeing here is a rapid change followed by a fairly -- this whole change happens fairly quickly.

19801. We'll have to ignore the -- they made a mistake here on the volume evaporated concentration but my understanding is that this terminates at complete evaporation.

19802. So within three days, which was the very, very beginning of the curve we just looked at, this -- all of the condensate has evaporated.

19803. So let's scroll down now to Figure 3-9 and this is the corresponding curve on more or less the same time scale for the diluted bitumen. So this is a mixture of the condensate plus the bitumen material that is shipped in the pipeline. And the concern we have here is how rapidly this change can occur.

19804. So this -- we're seeing a very rapid change within that first 24 hours and much less of an ability of the condensate to sort of buffer that change. So the oil can change behaviour relatively quickly compared to the synthetic crude oil.

19805. It's a subtle effect but it's one of the concerns we have that the changes in the dilbit can be more rapid than you'd expect based on previous experience with synthetic crude oil.

19806. This is one ---

19807. **MEMBER BATEMAN:** Did you have another example?

19808. **DR. BRUCE HOLLEBONE:** Sorry?

19809. **MEMBER BATEMAN:** Was there another example?

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19810.           **DR. BRUCE HOLLEBONE:** I don't have anything prepared at the moment.
19811.           **MEMBER BATEMAN:** Okay.
19812.           So what I'd like to -- is that all of your answer?
19813.           **DR. BRUCE HOLLEBONE:** Well, this is one of the features.
19814.           There are additional factors in terms of emulsification that are open questions and the behaviour of this product -- the data provided by the Proponent in this is mixed in terms of its ability to emulsify which also affects density.
19815.           And, particularly, there is nothing regarding the questions my colleague raised earlier about droplet size formation with wind or wave action and there's very little information about sediment interaction in the data reports provided to date.
19816.           **MEMBER BATEMAN:** Thank you.
19817.           **DR. BRUCE HOLLEBONE:** So ---
19818.           **MEMBER BATEMAN:** Dr. Khelifa?
19819.           **DR. ALI KHELIFA:** You'll remind me about the question, please?
19820.           **MEMBER BATEMAN:** The -- I'm wanting to have a better understanding, a clear understanding of your perspective of the evidence that has been provided by the Northern Gateway experts, including Mr. Belore, with respect to the characteristics of dilbit once it's been released into water.
19821.           So your opinion of the other expert's evidence.
19822.           **DR. ALI KHELIFA:** Well, yeah, from a modelling perspective, there are many aspects that need to be considered. When it comes, for instance, to oil sediment interaction, this is not specific to dilbit. This is specific to oil in general.
19823.           And if we -- if I refer to what they discussed in the previous response to a previous question, there are three types of interactions; okay?

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19824. If we focus on the two last ones that I mentioned previously, the interaction with the bottom sediment in shallow water system -- that means in the coastal zone -- all the shorelines themselves, regardless of the oil, there will be trapping of sand. And these are not very fine, they are relatively coarse sediment and they cause the sinking.
19825. So it's not relative to dilbit but relative to oil in general. These forces will take place and it will enhance the sinking.
19826. If we -- if it happens in a relatively deeper water system and if we look at what's happening in the water column, there are many factors, as I mentioned. The sea state is a key parameter. So which kinds of waves we have there; which kind of mixing we have in order to transform that slick to -- into small oil droplets and then they become available for this oil sediment interaction and make them neutrally buoyant.
19827. This also again, it's not specific to dilbit. It happens with all the oils. And the less viscous the oil, the easy to have this oil sediment interaction take place. It's based again on our extensive research for the last decade.
19828. If we focus now on the dilbit itself, dilbit is more viscous -- especially as my colleague Dr. Hollebone mentioned -- it becomes viscous, it becomes hard to split into smaller droplets. In other words, it needs more energy, more mixing to transform that process to -- the slick to small droplets.
19829. So assuming that there is enough suspended particulate matters in the water column and enough mixing energy, it will take place.
19830. Do we have quantitative understanding of that process? Is it going really to happen if we have this SPM, the suspended particulate matters, and droplets of dilbit? Is it going to happen?
19831. We don't have evidence. We don't have experimental data that were conducted as far as they know that showed that. From our perspective, our experience, it's likely but we need some quantitative understanding on that.
19832. And the bottom line at the end is to develop some predictive -- what we call predictive models to say, okay, if this happened, this is what -- how it's going to take place. And the -- we arrive to quantify how much oil may be



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transferred to the sea bottom from that -- based on that process.

19833.           The other part relates to what my colleague, Dr. Hollebone, mentioned. If we look at this -- what we call the evaporation process, again as expert, he mentioned that he has -- there is some special feature here of the dilbit.

19834.           And the question is, can we use what we know so far from the evaporation process to predict this evaporation. From my understanding, from my colleague, again as expert, we need to do some work on that and we need to develop proper models for that to predict this evaporation process and so on, specific to dilbit.

19835.           I hope this adds some information to the question.

19836.           **MEMBER BATEMAN:** Thank you.

19837.           Mr. King?

19838.           **MR. THOMAS KING:** Yes. I think all three of us here have something really unique to build upon together, both Drs. Hollebone, Khelifa and myself. What's interesting is we all do research on the fate behaviour of oil and I've done a lot of work on conventional oils.

19839.           And I would like to start by actually examining and looking at this like a conventional oil by first evaporating it over a 24, 48-hour period and then looking at it on a larger scale. What we have that is really unique is a facility that can simulate natural sea states and current effects.

19840.           So I can look at it in a much realistic environment and see exactly how it behaves and its fate under, you know, regular wave conditions, under breaking wave conditions, under the effects of current and have a better understand of its -- the distribution of the oil droplets in the water column.

19841.           We have techniques that we've developed, a COOGER that allows us to look at oil droplet size and the distribution of those oil droplets in the water columns so we can get a better understanding of its fate and behaviour. And we can also create a sediment loading very similar to some of the areas that we're talking about or some of the data that was presented this morning there on, you know, some of the suspended particulate matter and get an understanding how that interacts with those oil droplets in terms of going back through some of Dr.

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Khelifa's.

19842. And we will be collaborating on some of these studies and forming oil sediment interactions, and that gives us a better, broader -- a greater vision of what really happens in the real environment from the bench scale right to a realistic environment such as the wave tank.

--- (A short pause/Courte pause)

19843. **MEMBER BATEMAN:** Before I move to my next question, are there any other members on this panel who would like to respond to the question that's been reviewed by these panel witnesses to this point?

19844. **DR. HEATHER DETTMAN:** Excuse me, I would like to add a bit more, after that I could offer some more.

19845. I guess dilbit is a very general term for combinations of condensate or bitumen, so they can have different compositions and I thought it might be useful to sort of explain what this could be.

19846. As well, there's another topic, called synbit. What these are referring to is basically what the diluent can be in these mixtures, and so with regards to when it's a condensate for dilbit, sort of the -- what we're talking about for how fast it evaporates is the boiling point distribution of that oil that's added to the heavier oil.

19847. And so typically for the condensate, around 75 percent of it will be boiling by 204 degrees centigrade and then it has a slower curve where the maximum boiling temperature is up around 524 degrees centigrade. So in terms of evaporation, that will come off -- you know, and that's related to that.

19848. While with synthetic crude oil, it has a -- sort of a more gradual boiling point range where it's starting -- it can start similar to what the condensate is but it has a different kind of slope. And so that when you mix it with the bitumen to meet the pipeline spec, you can have around 30 volume percent of the condensate there. And so that when you have the fast evaporation, a proportion of that condensate comes off as well as the lightest ends of the bitumen will come off in with that time.

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19849.               If you have synthetic crude oil as the diluent, well then it actually would have 50 volume percent of it in there.
19850.               So you can different curves and different expectations of what can happen, depending on what that -- what diluent and bitumen is chosen.
19851.               **MEMBER BATEMAN:** Thank you.
19852.               I understand that Mr. Matthews has a follow-up question and then I'll go back to my next line of questioning.

**--- EXAMINATION BY/INTERROGATOIRE PAR MEMBER MATTHEWS:**

19853.               **MEMBER MATTHEWS:** Great, thanks.
19854.               I found that interesting, your last comment there, Dr. Dettman. Obviously a mixture that is out of equilibrium or the furthest away from equilibrium like -- that's mixed at a higher temperature will be the most susceptible to evaporating out of a dilbit solution then, right? Is that what you're saying?
19855.               **DR. HEATHER DETTMAN:** I don't quite understand about the idea of temperature.
19856.               **MEMBER MATTHEWS:** No, the condensate or the diluent material that's used will have an impact on the evaporation rate in the same seawater or ---
19857.               **DR. HEATHER DETTMAN:** Well on any crude oil -- any petroleum of any crude oil is a very -- is millions of compounds with characteristic boiling points. And so by adding the diluent to the bitumen, it actually is making it equivalent from the petroleum and the pipeline industry, kind of, perspective, to a heavy oil, you know.
19858.               And so like everything is totally miscible. There's been sort of misinformation out about that. They are totally miscible. It's not like one separates from the other. What you've done at the petroleum industry is about mixing oils and blending oils and so this is -- they just happen to blend these oils at that point to get it -- an extra heavy crude oil to be a heavy crude oil so that it can be pipelined. And that is the -- so that's from that perspective.

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19859.           So given -- if you have a crude oil, any crude oil will have its lightest ends, which are very important for these kinds of conditions. So if you can have oils -- well, you know, it's a boiling point curve at the front end, what it ends up looking like is important and so we're comparing sort of the -- if a crude oil has gasses in it, that's a problem, you know, for light conventional oils.
19860.           They all have different characteristics at the front, so if you have a certain content of the starting compound which is C-5, it's a pentane. However amount you have, that is sort of the fastest thing to come off. It has a boiling point of 36 and that will be the first thing coming off.
19861.           With knowing that it's a mixture and it has a certain viscosity and it has a certain thickness, so it can't all come off instantly, but if it's hot or if it's cold, it will come off faster, it will come off slower. That's the same with any crude and just how much of having that in there can impact upon this and so, yes.
19862.           **MEMBER MATTHEWS:** I was interested in Dr. Hollebone's comments about comparing dilbit to coffee, and once you add the cream and you mix your coffee, you can't basically re-boil your coffee and the Coffee-Mate evaporating. You're left with the cream.
19863.           So I mean I -- we've heard in these hearings that whether or not -- you know, whether it's miscible or immiscible, whether you can get those two components coming out upon evaporation again, whether you can end up with bitumen and condensate, and then depending on the specific gravity of bitumen, it could sink.
19864.           So the -- the idea is still, from what you're saying, a lot more research needs to be done on the components of dilbit and behaviour of dilbit under normal, let's say, 5 degrees Celsius waters or different conditions other than in the lab. Is that what you're saying?
19865.           **DR. BRUCE HOLLEBONE:** If I could just maybe clarify a little bit.
19866.           We're kind of arguing semantics here a little bit. Dilbit is a product made by mixing the diluent, whatever it is, the synbit, the synthetic crude or the condensate, typically, for the dilbit-type products. And it's true, you can't sort of unbreak the egg and make the two things whole again. That's what the coffee and cream thing was all about.

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19867. But it is true that the -- what does separate out of the oil is just these light chemicals, these light compounds. And that's true whether that starting material is the condensate or a synthetic crude oil or bitumen.
19868. But what matters is the amount of those compounds in the mixture and how quickly those particular compounds can evaporate or change or get -- dissolution is another process we haven't really talked about, but that's another way they can get removed from the product as well, but how quickly those materials can be removed or will remove themselves from the product and then how the product changes in time.
19869. And I think that's one of the things that we haven't really come out in the evidence yet, is how fast these changes happen. And so then do we have any special concerns about these products because of the rate at which they can change as opposed to the end state at which they could reach. And that's, I think, the areas where we need a lot more research and a lot more information than has been provided so far.
19870. **MEMBER MATTHEWS:** Just a final question. Someone mentioned that the -- for using dispersants in the event of a spill there currently is no regulation governing the issuing of permits or approvals for using dispersants.
19871. In the event of a spill, if the Proponent or response organization chose to use burning or to burn, is there -- what regime would that come under or what authority would that come under?
19872. **MR. THOMAS KING:** I think that's a question for Mr. Hogg.
19873. **MR. GRANT HOGG:** Hi. For burning, there are no laws out there that would not permit the use of burning, burning the oil off.
19874. However, the decision on whether or not to do that would want to consider a net environmental benefit assessment, public health issues associated with the smoke coming off the water, those sorts of things.
19875. So depending upon the state of the -- the conditions of the spill, the environmental conditions that are surrounding that spill, environmental impacts and, in this case, also the potential health impacts of burning would all need to be considered before deciding on what's the best course of action to reduce the

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consequences of the spill.

19876.           **MEMBER MATTHEWS:** Okay, great. Thanks a lot for your answers.

**--- EXAMINATION BY/INTERROGATOIRE PAR MEMBER BATEMAN:  
(Continued/Suite)**

19877.           **MEMBER BATEMAN:** I'll continue.

19878.           I believe I have heard from various witnesses that there's a view that there is a need for more scientific study and analysis with respect to some of the characteristics of dilbit in water.

19879.           I'd like to have a picture as to what would that additional scientific study look like, where would it take place, and what would be the period of time needed in order for the Panel to have conclusive information in order to make a decision.

--- (A short pause/Courte pause)

19880.           **DR. BRUCE HOLLEBONE:** As part of our evidence in the -- in some of the recommendations -- I don't remember the specific one -- but we referenced a previous work that had been done when a product was being brought in to Nova Scotia in the early -- late 1990s, early 2000s, a product called Orimulsion, which is similar, in some ways but not very similar in others. It's a mixture of oil and Venezuelan bitumen that had some concerns that are similar to the product that's currently under consideration.

19881.           In that case, Bitor, the company, voluntarily committed to a five-year research program with Environment Canada to study the fate and effect of this product, which had never been looked at before. And in some ways, when we wrote the recommendations that we have, that voluntary study on their behalf was at the back of our mind.

19882.           And I think the output of that collaborative work with ourselves, with DFO, with some of the other departments, was found to be very positive in terms of preparation for spill responders. Those manuals are still referenced today internationally and was found to be sort of a good exercise for how this sort of research program, that we've suggested, might be conducted.

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19883.           **MEMBER BATEMAN:** And so would the duration of the further scientific investigation, in your view, be needed prior to the Panel being able to draw appropriate conclusions for this application?
19884.           **MS. LAURA MACLEAN:** I think the approach that Environment has tried to take, because we recognize we have some areas of expertise, but it's broad consideration, is to identify what that -- what additional information we think would be useful and to explain how that could be used in the decision-making around the project.
19885.           So I think at this point we have said that the decision on timing is a decision that we would leave to the Panel because we recognize there are many other elements to it -- to that decision. But the kinds of studies -- I think we could say that -- you asked the question about what would this -- what would this research look like and where would it take place and how long would it last.
19886.           In terms of what would it look like, we've made some recommendations that we think are specific to this project and that we would see primarily as the Proponent's responsibility, but that we would be available to assist with advice.
19887.           In addition to that, though, the government, through work that Environment Canada is doing, through work that DFO is doing, through work that NRCan is doing, we have ongoing programs in these areas and, you know, we would be happy to tell you about the work that's planned. And I think we already did talk a little bit about that and the timeframe around that.
19888.           But this is ongoing work, and it's work that we recognize is not a timeframe of six months or, you know -- the work -- the information by this work is going to roll out over the coming years. And that -- I mean, we can answer questions around what information we think might be available or could be available within a certain timeframe and that may help the Panel understand what kind of information could potentially be available in the -- in its timeframe for decision-making.
19889.           But we see -- we see some of that being very specific to this Project and we see some of it being part of the broader Government of Canada's agenda for research in this area. And there are different timeframes associated with -- with that different work.

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19890.                So I know that's a -- kind of a fuzzy answer but we could perhaps, with some of our specific lines of information, give an indication of what kind of information we think can be available within certain timeframes if that might be helpful?

19891.                And I hope I'm not putting my colleagues on the spot by doing that but I think that, you know, the issue -- the issue about whether that has to be ready before a decision is made is broader than the mandate of our Department anyway and I would leave other departments to present their views on that.

19892.                **MEMBER BATEMAN:** I am interested in the additional information you referred to.

19893.                If it is putting the Panel on the spot, it could be provided as an undertaking. Which do you prefer?

--- (A short pause/Courte pause)

19894.                **DR. CAROLINE CAZA:** If it would be helpful to the Panel, we would like to -- we can provide some general timeframes now for things that we're working on.

19895.                I think we would want to preface it with a caveat that these are in the planning stages and, as you know, the way Government works is you develop a plan, you put it forward, you get it approved and we aren't at that final stage yet.

19896.                So it's work that we're planning, in the planning stages of, but would like to just put that caveat around that not all of the decision-making approvals have taken place for that work.

19897.                But with that preface, we could perhaps talk about work that NRCAN, DFO and NDC are contemplating in this -- and in planning in this area.

19898.                **MEMBER BATEMAN:** Please proceed.

19899.                **DR. BRUCE HOLLEBONE:** Okay, again, I want to caution you that this has not been fully approved by our management structure yet or by the Government itself in terms of the final research plan that we have.



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19900. We're proposing a sort of three-year, possibly five-year plan, to look at many of the questions we've raised in the evidence Although not specifically in the context of the Northern Gateway Project but in terms of there are many possible proposals going forward with these sorts of products in Canada now, both on the West Coast and on the East Coast.
19901. And so the concerns that we have are not -- not just specific to the Kitimat area but also to, for example, the Lower Mainland or the Gulf of St. Lawrence.
19902. So in that respect, the research that Caroline has mentioned, particularly on our side, is looking at a whole range of products that could be shipped for that because one of the questions we have is about product variability.
19903. And so to produce what we call our "database data" over the course of the next three years, for up to twelve or so products, to produce some information on the fate and behaviour questions that we've talked about here on the laboratory scale -- and maybe Mr. King can talk about some of the work that they're thinking about -- and to start looking at some of the needs that we have for our regulatory folks; for example, LC50s, and that sort of baseline toxicological information that they ask us for.
19904. We'll also be looking at the suitability of some countermeasures. In particular, dispersants but also things like surface washing agents which were used in the Kinder-Morgan spill in 2008 and potential for use of particular kinds of -- one kind of absorbent versus another, that sort of thing.
19905. So these baseline needs that the -- that the modellers and the responders have that they ask us during these things, there will be a component that looks at, for example, shoreline behaviour or potential for shoreline behaviour.
19906. Because that, we think, will be -- if there is a spill, will be one of the major -- major features of that response would be shoreline operations. So that's a large component.
19907. Maybe Dr. Khelifa can talk about what he has planned?
19908. **DR. ALI KHELIFA:** There are a couple of components here.

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19909.           The first one is what we do -- what we plan to do with EC. So EC in collaboration with the -- with DFO, Tom King lab, we want to address the oil sediment interaction with the hope to develop a behavioural model for that and to include it or integrate this model into a new generation oil spill model for that specific product and that specific site water system.
19910.           And to do that, we plan to sample sediment from different locations including Kitimat Arm and so on where we'll be working with experts from the Institute of Ocean Science to conduct that and we are planning to have a conference call just after this hearing and to proceed; hopefully, we're going to do it in -- by the end of this summer, but not sure.
19911.           In the same time, we want to work with the -- with expert in fate and behaviour, my colleague Bruce Hollebone, to develop behaviour models: How these oils disperse? How we can predict that? How it evaporate? How we can predict that? So it's a from prediction perspective.
19912.           So the second part I want to -- to bring attention to the Panel, it's more the operational side for spill response.
19913.           I have been involved in responding to a spill for several years now and Environment Canada, in collaboration with DFO and so on, developed what is called the "National Spill Modelling Program". And just yesterday night I was responding to a spill in the -- in Newfoundland.
19914.           What I want to see for that water system, really, an operational forecasting system, state-of-the-art. What that means: there are several components once again here.
19915.           Should spill occur in that water system, the models on the spill responder they want to know where this oil is going, which is the trajectory.
19916.           The second component: What's happening? What will happen to this oil during the 20 -- next 24 hours. And this information is crucial for spill response, in my opinion, and based on our experience again.
19917.           That requires, really, a multi-disciplinary work and that was the rationale why we proposed the scientific committee to work on this -- on this aspect.

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19918. I want to see state-of-the-art hydrodynamic model for that water system running in -- operationally. I want to see a wind state-of-the-art with high resolution for that water system. I want to see spill modeling for that water system state-of-the-art -- includes state-of-the-art as well.
19919. But the question perhaps that interest the Panel: Are you going to wait for this information, for this forecasting system to build up or to let Enbridge show that we did something and so on? We've been talking about stochastic modelling and so on. I don't want to rush. I think this is -- this is a long-term product, assuming that product is going forward.
19920. I want to see a good model, a real model, a good science there, and that requires time. I don't want to see a report with the good callers and so on and said we have -- we have a good model to predict while the science behind is not that accurate, yeah. So this again is time consuming. It takes time and I believe it's perhaps most likely post-approval or something like that.
19921. **MR. THOMAS KING:** Hi, Tom King here, DFO.
19922. With DFO, science has approved for us to do at COOGER so far is to look at this oil like we would treat a conventional product. We have two dilbit products and normally what we do, we go through a weathering process to remove a certain mass of that oil over a 24 to 48-hour period and then the oil is spilled in the wave tank facility and what we do is we look at its fate and behaviour under sea state and environmental conditions, taking into consideration things like temperature, salinity, sediment interaction, those sort of things.
19923. The initial phase of this study -- and I can give you a more tighter timeline because I'm under pressure to get it done -- will start, actually, Monday, April 29<sup>th</sup>. We'll proceed with that in the cold water studies looking at the two products in addition to looking at the fate and behaviour under natural sea state conditions in just the -- without any spill-treating agents, and then in addition to that, we'll actually apply some spill-treating agents such as Corexit, looking at mineral find interaction, in this case we'll use kaolin, and then a combination of mineral finds and dispersant.
19924. These are -- are spill-treating agents that we've used for conventional oils in the past, so it should give us some information very quickly. By the end of -- by the end of July or close -- probably more realistic, by the end of June, we'll have those tests don, which will give us an idea of how this oil behaves in cold

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water under three -- three or four treating -- three or four different remediation options.

19925.           At that point we will be able to put together a report. It'll probably go to a peer review stage and we'll have some idea how this oil behaves in cold water and also -- you know, if -- if various treating agents are effective that we've used in the past.

19926.           By July, we start hitting warmer water temperatures. You have to appreciate that this facility is outdoors, so we've taken advantage of seasonal changes in the waters taken directly from the Bedford Basin. So we're using real seawater. At that stage, we'll look at warmer water temperatures which are yearly around 15 degrees Celsius or less and we'll go through the same tests as we did with the cold water experiments and that way we'll have two conditions -- two temperature conditions, both cold and warm, and we can get a better idea of its fate and behaviour in those natural states and in the -- in the natural state using spill-treating agents.

19927.           And hopefully, most of that work will be done within -- by the end of 2013, and the next phase of that would then would be to complement the work that both Dr. Hollebone's and Khelifa will be doing in terms of the sediment work they do on the lab scale. We'll then take that and try to move it to the wave tank which would be now in the year two, and to look at those same spill-treating agents again if they're effective in natural states and applying whatever information he has gathered in -- in our same realistic environment.

19928.           And the same would go for Bruce in terms of weathering of the oils. If he sees that the oil is weathered at different rates and behaves differently, we can test those as well under realistic conditions and again try different spill-treating agents.

19929.           The data from all of this will give us an idea whether or not -- how the oil behaves in the natural environment under realistic conditions, what type of spill-treating agents that we currently have in place for conventional oils, whether they'll work or not.

19930.           And then the last phase would then be to look at more improved methods that we can use so that people like Mr. Hogg and other spill specialists have data available in the event of a spill, how to be able to handle that spill.

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19931.           **MEMBER BATEMAN:** Thank you.

19932.           **DR. HEATHER DETTMAN:** And I can summarize the NRCan.  
They don't mention me at all.

--- (Laughter/Rires)

19933.           **DR. HEATHER DETTMAN:** But anyway, we're relatively new on  
-- in the involvement for marine spills. Our expertise is coming from really the  
petroleum industry, working with the oil sands products, helping the industry do  
refinery kinds of upgrading, things to process the oil.

19934.           So over the last 20 years, we've developed expertise for characterizing  
basically species in the oil that can cause refinery issues. But from becoming  
familiar with what my colleagues are doing in -- in the marine response, I'm  
thinking that some of the -- the species that we identify, like asphaltenes, resins,  
subcomponents in oils would be very relevant to these kinds of situations.

19935.           So what NRCan is doing is, first of all, we have industry contacts  
which facilitates us getting samples of oil to provide to our colleagues and then,  
with that, we have the capability to do petroleum standard and research type  
characterization capabilities to it.

19936.           So our involvement in this is to do baseline characterization kinds of  
studies and focusing on understanding the, say for instance, asphaltenes, resins,  
components which are the most polar species which may be the species most  
likely to be involved in picking up silt, for example.

19937.           And then, as the program unrolls with our colleagues as they generate  
weathered samples, they would then give us a sub-sample to then continue that  
research. So then we can correlate these -- these subcomponents and how their  
concentrations change, how they possibly are involved in the interactions that  
they end up seeing. So we are doing the molecular characterization relative to the  
interactions that they're looking for.

19938.           **DR. CAROLINE CAZA:** May I just -- I just wanted to put some of  
this information in the context of this project and just make it clear, certainly from  
Environment's perspective that these are -- are parts of ongoing research  
programs that the department has and -- and this work -- a lot of this work is -- is  
planned.

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19939. But from the department's perspective, it's broader research than in the context of this specific project, and we see it as related. The outcomes of this work will definitely be related to informing the kinds of issues that have arisen in the context of -- of this project, but that the specific recommendations that we've made with respect to this project are something distinct that we think are important to undertake through Proponent's work that's related to this project.

19940. So the work that we've described we've shared because it will be helpful to -- for the Panel to understand that the government has lines of work related to this area that are -- that are in the planning stages, that are -- that are parts of existing research programs.

19941. But they are -- but it is distinct, the results of that work are not specific to the issues in the specific locations that are -- have been identified for this project.

19942. So I just wanted to provide that context so that we made a clear distinction between those -- the recommendations that we've made in the work that's planned. I don't know if that's clear and if you have questions about that but I felt it was important to make that distinction.

19943. **MEMBER BATEMAN:** I believe that's clear.

19944. What I'd like to do next is to ask a few questions that relate to the evidence that was given by the Gateway Witness Panel Number 2, and a great amount of evidence is on record. There was significant cross-examination. And the Panel sought, in its questioning, to summarize its understanding of what had been concluded by that particular witness panel.

19945. And it resulted in six statements and it's on the transcript, but because there's so much information, what I'll do is I'll review those statements and would seek to understand from this panel whether you concur or whether you have a divergence of thinking and, if so, then we would be interested in seeing what that perspective is or additional information.

19946. The statements were in connection with real world experience in a spill scenario and the first statement that the Panel understood to be the evidence of the witness panel was a significant oil spill, particularly if it reaches the intertidal zone, will affect the natural marine environment including the surface

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water.

19947. Does this Panel agree with that statement?

--- (A short pause/Courte pause)

19948. **DR. CAROLINE CAZA:** From an Environment Canada perspective, this Panel, this witness -- group of witnesses would agree with that.

19949. **MEMBER BATEMAN:** Ms. Antcliffe?

19950. **MS. BONNIE ANTCLIFFE:** Yes, from DFO's perspective, we would agree with that.

19951. **MEMBER BATEMAN:** Thank you.

19952. The second statement is the impact would be particularly negative to species sensitive to the toxic properties of oil in the affected marine area, particularly those whose habitat is primarily on the surface water.

--- (A short pause/Courte pause)

19953. **DR. DAN ESLER:** Could we ask you to read that one more time, please?

19954. **MEMBER BATEMAN:** Certainly.

19955. The impact would be particularly negative to species sensitive to the toxic properties of oil in the affected marine area, particularly those whose habitat is primarily on the surface water.

19956. **DR. DAN ESLER:** I think that statement is generally true, although there may be other attributes in addition to sensitivity to toxicity that would be important in terms of the likelihood that a certain species would be -- how likely they would be to encounter oil.

19957. So that would depend on a number of other attributes like their habitat selection, seasonality, things like that.

19958. **MEMBER BATEMAN:** M'hm.

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19959.           **DR. DAN ESLER:** So I would say sensitivity of species is not limited just to issues of toxicity but to a whole suite of other attributes.
19960.           **MEMBER BATEMAN:** Thank you.
19961.           Ms. Antcliffe?
19962.           **MR. THOMAS KING:** I'm just looking at this at a, sort of another way to -- if the oil is covering the surface then it affects the air sea boundary which would probably affect the exchange of oxygen which could in turn affect microorganisms at that level, yes.
19963.           **DR. JOHN FORD:** And if I could just add regarding a point regarding marine mammals in that toxicity is a potential issue but also is the physical fouling associated with contacting oil.
19964.           Depending on the species, it can interfere with thermal regulation, keeping warm in the water in the case of sea otters, potentially interfering with breathing at the surface if -- depending on the physical composition of the oils. For example, if it is rendered into a mousse kind of state, there's that potential.
19965.           And also for animals that feed at the surface, such as humpback whales, that open their mouths right at the surface to consume prey, there's the potential for fouling of the filtering mechanism that the animals use to extract prey from the water.
19966.           **MR. STEVEN GROVES:** I just had a follow-up question about -- could you define "surface"?
19967.           **MEMBER BATEMAN:** Well, I was summarizing the evidence given by the other witness panel so I don't think that it would be fair for me to speculate to what was meant.
19968.           If you want to layer in what your definition of surface water would mean in response to that question, it would be helpful.
19969.           **MR. STEVEN GROVES:** I think just from a perspective that the surface can mean a certain depth of water, you know, surface water, intertidal water, so there could be, you know, certainly effects from the physical contact



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with oil.

19970. But also if there was any distribution of oil within that column of water that they could have other effects deeper than just the surface.

19971. **MEMBER BATEMAN:** M'hm.

19972. **MR. STEVEN GROVES:** So that was just a comment I was going to make.

19973. So I'm not sure I could agree with the statement. I think it was that the -- that there would be effects only at the surface.

19974. **DR. BRUCE HOLLEBONE:** If I might add to that, during any spill, whether it is sinking or floating, we always -- one of the first things we look at, for example, is shellfish impacts.

19975. And any organism that lives in the intertidal zone or just below it is considered one of the prime impact -- potential impact areas during a spill. So when we're doing assessments, when we're looking at shorelines or potential affected areas, those are certainly key ones. Maybe they're not at the surface, but within 10 metres of the surface.

19976. **MEMBER BATEMAN:** And I think from the sentence that was read it was in the affected marine area and then particularly including the surface area. So I thank you for the additional responses.

19977. The third statement was: a marine environment will, after the initial impact of an oil spill, naturally restore itself to its pre-spill environmental state.

--- (A short pause/Courte pause)

19978. **DR. DAN ESLER:** This is Dan Esler with Environment Canada.

19979. I think to answer that question there needs to be a little bit of a conversation about the different definitions of "effect" and "recovery" and how that can really influence the conclusions that one makes.

19980. And that's -- that was a considerable issue in the interpretation of research after the Exxon Valdez spill and so I want to spend a little bit of time

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reflecting on that.

19981. Dr. Ford implied that there are effects that are not only related to ingestion of oil but also effects that could be related to external contamination in term of regulatory issues and things like that. So those are two different pathways of effect but there are some deeper issues with relation to: What are effects? and What are recovery?

19982. One is the concept of differentiating between direct effects such as those that we've talked about, either ingestion or external exposure, but also indirect effects. And indirect effects might be manifested through changes to the food web or the environment that would have either trickle up or top down effects on the animal of interest that you're considering in terms of effect or recovery.

19983. Another scenario or another example of an indirect effect might be in the case where a population is affected by the initial perturbation of the spill so numbers are decreased. The effects may have ceased but the time that it takes for that population to recover through natural demographic processes like survival rates and recruitment and things like that may take a long time beyond the period when those direct effects are being expressed.

19984. So that differentiation between direct and indirect can often be a pretty important point.

19985. It's also important to consider the idea of acute effects which we generally think of in terms of being the most important for oil spills, that is, the direct effects that happen in the immediate weeks to months following a spill. But there also can be chronic effects that can be either direct or indirect. So there may be direct exposure to oil that may exist well beyond those first weeks to months after a spill.

19986. And I guess the other distinction to make in terms of effects is differentiating between lethal effects that actual cause mortality of individuals and sub-lethal effects that may not affect their survival but may affect other aspects of their performance, maybe reproduction or immune function or a long list of things that can be affected by hydrocarbons.

19987. And so in terms of thinking about those effects in terms of recovery, they're -- you know, different people have had different views on which parts of the effect definition would be most relevant for recovery. Some people would

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only consider direct effects while other people would consider both direct and indirect. Some people would only consider chronic effects. Some might consider -- some people only consider acute while others would consider chronic as well.

19988.                So those are the kind of underlying issues that I think might be relevant here. Are there any questions about that part of the answer?

19989.                **MEMBER BATEMAN:** It's been helpful to hear the various considerations. What's your perspective then on the passage of time and I want to get this -- and the view that there will be a natural restoration ultimately?

19990.                **DR. DAN ESLER:** Okay. So the timeline over which recovery occurs is really dependent on attributes of the spill of course but in terms of amount of spill and the habitat that's affected and things like that and also very much on the attributes of the species that are being affected, both in terms of their natural history, like the things that they eat, the places they occur and also their life history in terms of demographic tables.

19991.                You know, what their generation time is, the number of young they produce, the age at first reproduction. That really influences how quickly a population can rebound from a perturbation like an oil spill. And so I guess the answer to the question of timeline is that it's quite variable.

19992.                Thinking back to the Exxon Valdez and thinking of marine birds specifically, there are examples of many species that showed really no population level effect of the spill. That is, there were no declines in numbers, no evidence that survival or reproduction were affected. There are other examples of species for which the timeline to recovery was demonstrated to be in, you know, single digit years.

19993.                For example, bald eagles showed both declines in abundance and declines in reproductive performance in the first years after the spill, but you know, by six or seven years out, they had returned to their former abundance and their reproductive -- the number of young produced on an annual basis were back to normally essentially.

19994.                And there are other species like the harlequin ducks that I've worked very much with that showed both direct and indirect effects that occurred over decades really. So the best estimate of timeline to a full recovery was 24 years. So there's just a lot of variation in terms of recovery times and it really depends

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on the species that you're considering.

19995. I think it's fair to say that effects of a spill won't go on in perpetuity. There will be a recovery of the system and the components of that system will recover across a wide variety of timelines.
19996. **MEMBER BATEMAN:** Thank you.
19997. Ms. Antcliffe, anything more to add to what we've heard?
19998. **MS. BONNIE ANTCLIFFE:** Nothing to add from DFO.
19999. **MEMBER BATEMAN:** Thank you.
20000. The next summary statement that the ---
20001. **DR. BRUCE HOLLEBONE:** I'm sorry. If I might add ---
20002. **MEMBER BATEMAN:** Pardon me.
20003. **DR. BRUCE HOLLEBONE:** Just to amplify my colleague's statements. One of the questions we've identified in the evidence is the long-term persistence of the oil. How long will the oil last in the environment and what sort of state would it reside in? We have a program within my group to look at the long-term behaviour and recovery persistence of oil in the environment.
20004. And there's a number of site we're visiting in northern Alberta and Nova Scotia, for example, where we have -- in Baffin Island where we have 10, 20, 30, 40 years of data on some of these sites and how the oil gets broken down in the environment.
20005. Now, there's a really question too about how much danger in remaining oil poses in the environment. Is it source of toxic compound leaching into the environment or not; does it form a sort of stabilized pavement that doesn't pose a great danger.
20006. The other aspect here that we've kind of touched on that we haven't really seen is what are the effects of recovery operations on the natural rehabilitation? We've seen in a couple instances and spills where recovery options can actually change a population. You can change an environment by say

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clean-up operations in a wetland, where the wetland may not exist following the spill and so recovery may happen. There may be a natural population that re-emerges in that area but it may not be the one that was there before the spill.

20007. And there are cases in Kalamazoo, for example, where this has happened. There have been creek beds that have been so perturbed that the original coalition of species is not back. They've been replaced by a different set of species. So there's that wrinkle to it too that recovery may happen but it may not produce the same amenity use that was previously existing.

20008. **MEMBER BATEMAN:** Thank you.

20009. Is there anyone else on this panel who would like to respond to this particular question?

20010. Let me move on. Dr. Esler might have already answered this question but please add to it if you feel inclined. And that was the summary statement that:

*"Full recovery by oil affected species with few, if any exceptions, occurs over time."* (As read)

20011. **DR. DAN ESLER:** Yes, I'd agree with that statement and I think my previous answer thoroughly covered that one.

20012. **MEMBER BATEMAN:** Yes.

20013. Ms. Antcliffe?

20014. **MS. BONNIE ANTCLIFFE:** Yes, Dr. John Ford can add to that.

20015. **DR. JOHN FORD:** I would just agree with Dr. Esler's excellent summary of the recovery that he described with evidence from the Exxon Valdez experience. And his comments with respect to the different rates of recovery according to the life history of different species that he referred to in birds is very similar to what can be expected based on that experience for marine mammals, where some were minimally effected or recovered fairly quickly.

20016. And as we've heard in previous evidence, that some species have taken far longer to recover and have yet to do so in the case of killer whales it appears. And also for the sea otter, there's still -- there's evidence that even two

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decades after the spill, there's a pathway for contacting oil in the sediment that still seems to be active today or in recent years.

20017.           **MEMBER BATEMAN:** In the Exxon Valdez example, which the earlier witness panel for Northern Gateway provided, were that there were three species that had not yet achieved a sufficient or the required level of recovery. If I recall correctly, it was the whale, the otter and herring I think.
20018.           The evidence that the Panel was presented with appeared to suggest that there were additional circumstances independent of the spill itself that was the direct cause for the lack of recovery of those particular species.
20019.           Do you have a point of view or does this witness panel have a point of view of either accepting or rejecting that evidence?
20020.           **DR. JOHN FORD:** I can comment on the marine mammals, to the best of my ability, which may be somewhat limited for the sea otter because it's not in my area. But I am quite familiar with the discussion regarding the various potential causes of mortality with killer whales in Prince William Sound that took place during and after -- in the years subsequent to the oil spill.
20021.           There was -- and I'll try not to get into too much detail on it but I think that it's important to recognize that certain groups were -- that were well documented in terms of individual photo identification so that they could be census quite precisely before and after the spill.
20022.           Certain groups experienced unprecedented mortality following the spill that in an otherwise fairly high survival species and that these groups were observed in or swimming through oil or in the vicinity of the spill during the weeks subsequent to the incident.
20023.           And there's uncertainty in terms of associating it directly, the mortality with the spill, in that it's not clear what may have caused the mortality, if was the result of exposure to oil, because the carcasses were never seen, the animals were not censused until some months later.
20024.           There has been some question raised recently in a publication that suggests a hypothesis that some of the mortality of these individuals that disappeared subsequent to the spill may, in fact, have been related to wounding from directed shootings that have taken -- that took place in the years previous to

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the spill as a result of retaliation or attempts to dissuade animals -- these animals, this particular group, in fact, of killer whales in the case of the "AB Pod" as it's called, from taking fish off fishing lines. And there were documented wounds and some mortality of those individuals before the spill.

20025.           The hypothesis, however, is that for the animals that were potentially wounded, that some of the mortalities may be a result of these wounds having expressed themselves into a lethal cause of or action some year subsequent to the shooting event. So this is I consider somewhat of an implausible hypothesis, in that it relies on this untested and unverified assumption that wounds can -- after several years have passed can suddenly become lethal to the animals and cause mortality.

20026.           So, in my opinion, the most likely -- the weight of evidence suggests that the mortalities of these animals was most likely related to the oil spill and not residual effects of shootings.

20027.           In the case of sea otters, there -- the assessment, as I understand it, of the long-term effects and recovery of otters that were in the vicinity of the spill in Prince William Sound, is somewhat complicated by different abundance trends in sea otters generally in the entire region where sea otter numbers have declined significantly for factors that seem to be related to changes in the ecosystem in that area, especially out towards the west and the Aleutians.

20028.           I think what we do know from ongoing studies in the Prince William Sound area is, as I had mentioned, there is documented cases of the presence of oil in the pits that foraging otters excavate in the intertidal zone when they're digging for clams and this kind of prey. And so there is a pathway for continued exposure, whether that exposure results in -- can or does result or is resulting in mortality of these individuals or whether these mortalities might be at a population level is somewhat uncertain; but this is a little outside my area.

20029.           **MEMBER BATEMAN:** M'hm.

20030.           **MR. STEVEN GROVES:** It's difficult for me. I'm not familiar with the statement or with the area in which the Exxon Valdez spill occurred.

20031.           I might offer some general comments about herring and herring spawning behaviour. Herring tend to be migratory and highly migratory. So they do head quite a ways out. They do have quite a mixture with other populations.

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20032. In the Pacific Coast here, we have what we call “three major stock populations”. But when we end up with -- annually, in the spring, when those adults return, the ones that are sexually mature, that major population that, for instance, returns right here back to Prince Rupert, the concentration and the abundance of herring will tend to grow and reduce depending on an annual basis.
20033. So it’s difficult for us to say that, for instance, if a spawn did not occur in its regular area whether or not that actually means that there is less herring around that’s perhaps due to some anthropogenic effect or whether it’s just an environmental difference because herring tend to stray a lot. And I think that’s why we only have -- we’ve got very large genetic stock groups on the Pacific Coast because herring tend to stray. They tend to follow the herring that’s in front of them, and they want to be in large groups because that increases their reproductive success.
20034. So it’s difficult to say that, you know, if herring were to disappear from one spawning area that that means that there actually is a reduction in stock, because perhaps when -- it’s sort of like a balloon, you know, when you grab one end it sort of pushes out to another end -- so that herring could have migrated to somewhere else.
20035. But it does -- when I apply a bit of common sense to it and say that herring will go to an area where they think they have the greatest reproductive success.
20036. So if there’s something changed about the environment that it would normally have returned to, either a loss of vegetation, or herring actually do spawn directly upon a substrate -- it tends to be really large substrate because they don’t want it to be moving in the waves that would actually crush the eggs -- but they do spawn on rocks and they do spawn in intertidal areas right where a potential spill could occur.
20037. So it is possible that either there was a direct effect, a direct contact. And I think we heard there’s a number of different effects long-term, you know, you’ve got acute and chronic, and that could have occurred that caused a mortality there, and perhaps that -- you know, those young herring didn’t survive and the adults didn’t come back to that direct area, or perhaps when the herring came back there was a change in the habitat and that since there wasn’t the ability for them to have a reproductive success in that area, either through a loss of



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vegetation, which herring tend to use predominately to spawn on vegetation, so if there was a reduction of vegetation perhaps the herring went somewhere else. And so that's -- herring -- it is difficult to say why there would not be a recovery in that area.

20038.           And maybe the only other thing I wanted to add is that, when you talk about the species that have recovered, it's very possible that we only know the species that haven't recovered because we actually measured them, and there's probably a -- and we measure -- as biologists, we tend to measure -- I think we talked it about it earlier -- in terms of sentinel species, species that we can -- we know what their life -- or what their abundance was in the past and what it will -- and perhaps that makes it easier for us to measure it in the future.

20039.           But there is a concern that there is other species there that we haven't measured and they aren't as easy to measure and that they haven't recovered as well. So there's sort of that.

20040.           Herring is a nice one because we can measure it easy and I just don't know about the other species that perhaps wasn't mentioned.

20041.           **MEMBER BATEMAN:** Thank you.

20042.           **DR. DAN ESLER:** I can add to the commentary a bit.

20043.           I think your reference was to the status of resources based on the Exxon Valdez Oil Spill Trustee Council. They updated their status of resources I think in 2010. And the three species that were considered not recovering were killer whales, herring and pigeon guillemots. Pigeon guillemots are a small seabird. And I think these guys have covered the whale and herring circumstances pretty well.

20044.           I do note that there certainly was disease that played a factor in the changes to herring abundance in Prince William Sound and there are competing views on whether the disease was or was not exacerbated by effects of the spill, but it certainly was a contributing factor in population declines for that species.

20045.           For the pigeon guillemots, there are also confounding issues there, in that they were experiencing really decadal scale numerical declines prior to the spill. So those declines continued but it's hard to attribute those continued declines to oil spill effects given that they were already in a population decline.

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20046.           There are a broad suite of other species that are considered to be in the recovering but not yet fully recovered category, and that would include things like sea otters, harlequin ducks, subtidal systems generally.

20047.           But, again, the definition of that kind of depends on what you call as “recovery” so -- but anyway I think -- I think that gives you a good idea about the recovery status of species, at least in that particular situation.

20048.           **MEMBER BATEMAN:** Thank you.

20049.           There were two other summary statements that were provided in this exchange with the panel and the earlier witnesses. I will cover them but if you are of the view that it’s outside the scope of this panel I would be satisfied to hear that.

20050.           The summary statement was that human intervention in the marine oil spill can help direct and accelerate the natural restoration process of the environment and for species recovery.

20051.           **MR. THOMAS KING:** Tom King here.

20052.           I think that may be referring to using remediation. There are techniques that you can use that’ll help to clean up the site a little quicker. And then there’s also natural microbes that actually can consume the oil as energy and help to break down the oil faster.

20053.           And there’s a process sometimes we refer to as seeding. If there’s enough nutrients in the area or enrichment then you can actually enhance the microbial population, and in turn, help to accelerate the bioremediation of oil or the natural processes that take place and act upon the oil.

20054.           **DR. BRUCE HOLLEBONE:** If I might just add. I think we do actually have a fair bit to say here I think. But it might be more appropriate in Panel 2, because this is really getting into recovery and response questions.

20055.           I mean we can go into it now if you wish but we can also hold it for the next panel.

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20056.           **MEMBER BATEMAN:** No, I think we can have that wait till we have the full panel who can turn their minds to that particular question.
20057.           The last statement by the witness panel for Northern Gateway was that it was its scientific opinion that the conclusions of statements one to five, what we've covered right now, would apply without qualification to a dilbit spill event in a marine environment.
20058.           And so does the witness panel here concur with that view or have a different perspective?
20059.           **DR. CAROLINE CAZA:** I think Environment Canada's perspective on that is that we've made some recommendations for additional information in an area where we see some significant gaps.
20060.           So I think we wouldn't be prepared to agree with the statement that says without qualification at this point, recognizing those information gaps in our understanding.
20061.           **MEMBER BATEMAN:** Ms. Antcliffe, anything from DFO?
20062.           **MS. BONNIE ANTCLIFFE:** We would agree with EC and we have nothing to add.
20063.           **MEMBER BATEMAN:** I'd like to thank the witness panel for the answers that you have provided me. They've been thorough and helpful.

**--- EXAMINATION BY/INTERROGATOIRE PAR THE CHAIRPERSON:**

20064.           **THE CHAIRPERSON:** And I have one other line of questioning.
20065.           Mr. Hogg, I think it goes to you but if there's others that can respond I'm interested in -- in understanding this to -- to the practicality of what happens when historically net environmental benefit has been applied to previous industrial situations? And for this sake I'd use previous oil spills.
20066.           So what has been the experience of the application of net environmental benefit on a historical basis?
20067.           **DR. BRUCE HOLLEBONE:** Okay, I guess I've been nominated.

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20068. I've been to a few oil spills and been involved in those discussions myself. What you're really talking about -- the framework we talk about that is what we call endpoints. When is -- when do you stop recovery operations -- and maybe we're wandering into Panel 2 a little bit but we can talk about it here.
20069. The decision-making process of how do you know you've done enough, because as has been mentioned to earlier, there are natural recovery processes which will take place regardless of what the human operations are. And you want to -- the whole question revolves around the idea of when do you stop cleaning up damage and when do you start producing more damage by the recovery operations themselves.
20070. To use my example of a wetland again, if you have a marsh that is -- that has had been impinged with oil that may be used by an endangered species, if you go in and you tear up the marsh you will get all the oil. But then the endangered species has nowhere to go, and thus, you've destroyed their habitat.
20071. So you have to balance those considerations of the use by either a natural resource such as a species at risk or perhaps a traditional fishery and you have to balance those considerations against the full removal of that environment for example.
20072. So in general the -- the discussion becomes how -- how much active clean-up is required to -- to restore to a certain situation or what offsetting can you do versus, you know, complete an entire removal of the oil from the environment for example.
20073. So in general it's a compromise and you have to make that benefit decision on a case-by-case basis, often a site-by-site basis within the spill area.
20074. **THE CHAIRPERSON:** And the reason I'm bringing it up with this panel is I'm interested in the environmental effects aspect of this.
20075. **DR. BRUCE HOLLEBONE:** Okay.
20076. **THE CHAIRPERSON:** And what I'm interested in understanding is the practical experience, particularly, that I gather Environment Canada has had in applying this principle and what it's meant in past remediation efforts.

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20077.                So I'd like to -- I'd like to take it right down to the practical application as opposed to the theoretical application.
20078.                **MR. GRANT HOGG:** Hi. I'll give one example of a spill that occurred in the St. Lawrence River about two or three years ago.
20079.                It was a spill from a ship, it was oil and the oil was flowing down the St. Lawrence River. Quite farther down there were water intakes for drinking water, which were obviously a concern, and the idea was to try and prevent the oil from getting as far down as there.
20080.                In between those water intakes and where the oil was -- was being released was an island near the shore. And so it was thought that we could contain that spill by directing the oil towards that island so that we could increase the concentration of the oil. It wasn't -- we weren't doing it, we were providing the advice. But the idea was to increase the concentration of the oil so that we'd be able to clean it up much more effectively, quicker and also stop the larger impacts downstream.
20081.                What -- it just turned out that the -- the shoreline on the -- next to the island was important nesting habitat for migratory birds. So had we done that, had that been the decision taken the -- it's likely that that habitat would have been damaged by that oil.
20082.                So because we were able to draw on information from our colleagues from the Canadian Wildlife Service, use some of the modelling information from our colleagues from the science and technology branch, and also understanding the flow of that oil from the fate and behaviours effect, we're able to provide that information to Coast Guard and suggest that that wouldn't be the best idea and perhaps there's a secondary approach to containing the spill.
20083.                And that -- a secondary approach was found that did allow it to clean the spill without using the natural use of that island to increase the concentration of the spill.
20084.                So that's -- that's a fairly straightforward example of how you consider modelling fate and behaviour, potential environmental impacts and decisions that are taken at a response to reduce the consequences of the spill.
20085.                **THE CHAIRPERSON:** And how much experience has Environment

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Canada had with the application of this net environmental benefit in the case of say oil spills? Is it just the one example that you cite or is this something that's been routinely applied over a number of years and lessons have been learned from it?

20086.           **DR. BRUCE HOLLEBONE:** This is the normal discussion that happens in Incident Command or within the advisory structures to Incident Command like REET.
20087.           And this is one of the main discussions that happens in REET or similar kinds of bodies where the stakeholders will sit around the table and enumerate their -- you know, this is -- this is a species at risk area, this is a traditional use area, how do we -- how do we manage those considerations in terms of clean-up operations.
20088.           It's a very common practice. It happens in every spill that I've ever been on and is integral to the whole planning process. It's how that response planning loop happens every single day.
20089.           **THE CHAIRPERSON:** And again, going back to the environmental effects piece which is what I'm wanting to concentrate on with this panel, have you had lessons learned on the application of net environmental benefit to a particular case or instance or set of instances where you go: "Hum, you know, we need to learn about this and not apply it in this matter on a go-forward basis"?
20090.           **DR. BRUCE HOLLEBONE:** Maybe I can draw on the Kalamazoo spill for example as somewhat relevant to this process.
20091.           There have been a lot of decisions made during their -- to protect certain kinds of environments in certain ways to use certain levels of intensity in terms of spill clean-up. I don't want to say that those decisions were -- you know, I don't want to try and criticize the history there but there is, you know, an attempt to try something and maybe it doesn't work as well as you'd hoped and you have to then recalibrate your -- your intensity and these decisions have to be made with limited information on an ongoing basis.
20092.           So one of the lessons learned and one of the best lessons we've had is: the more prepared you can be, the more you know about this product, the more you know about the ecosystem that will receive -- possibly receive the product, the better off you are.

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20093. One of the things that had to be done in Kalamazoo, almost on the fly, was a hydrodynamic model of the river and, if that had been in place prior -- there's no reason it should have been in place -- but if that had been in place prior, three months of work might have been saved.

20094. And so this is one of the reasons -- one of the motivations behind many of the recommendations we've had to the Panel is that, the more work we can have in advance of any possible release, the better prepared we'll be and the better prepared we'll be to make some of those critical response decisions.

20095. Working in limited information really is one of the major restrictors on what you can do and what you can't do. If you don't know what the current patterns are, you may not be able to make those boom point decisions where your -- where your control booms need to be, for example.

20096. So those are the sorts of information. If you don't know that this stuff has a possible window for sinking or a possible window for -- for dispersant use, for example, you may not be able to make those decisions in a timely enough manner to be effective during a spill.

20097. **THE CHAIRPERSON:** Anything else that anyone wants to add?

20098. **DR. ALI KHELIFA:** I just want to add something to -- to what Bruce mentioned, the hydrodynamic model.

20099. That's the forecasting system I was talking about, operational forecasting system.

20100. **THE CHAIRPERSON:** Thank you very much. Those are all my questions and so those are the questions of the Panel.

20101. Ms. Anderson, is there any redirect?

20102. **MS. ANDERSON:** No, no redirect, thank you.

20103. **THE CHAIRPERSON:** Well then, this is the most pleasant part for most witness panels where our Panel thanks the witnesses very much for your participation and for the evidence that you've provided to this proceeding and the magic words appear to be: "You are now released."

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20104. So we will -- thank you again for being here.

20105. So we will take our lunch break and come back and seat the next panel.

20106. I would just mention also that, for everybody's information, I said that we would -- we said that we would be updating the hearing schedule on a daily basis. We will sit until 3:30 today, and so that -- just so that everybody knows there's an extra half hour to -- to spend in other ways.

20107. Thanks very much everyone. Let's be back at 10 after 1: 00. Thank you.

--- Upon recessing at 12:02 p.m./L'audience est suspendue à 12h02

--- Upon resuming at 1:10 p.m./L'audience est reprise à 13h10

20108. **THE CHAIRPERSON:** Thank you very much, Ms. Mills. Thank you very much to the next panel.

20109. Before we begin with this next panel, I'll just see if there's any preliminary matters that parties wish to raise.

20110. **MS. ANDERSON:** Madam Chair, yes, just one brief preliminary matter.

20111. I just wanted to alert the Panel that we have, in the last two days, received 23 separate aids to cross-examination. Unfortunately, we don't have facilities here to print them out for all of the witnesses, so we will certainly do our best with respect to timing and reading them.

20112. We did have a number of witnesses en route here last night, so I don't know that they've all had an opportunity to review the aids. We don't take any issue with my friend, Ms. Kyle's, first two aids, as those were part of the evidence, but the following 21, you may hear from me throughout as those are brought up.

20113. **THE CHAIRPERSON:** Thank you for providing us with the notice, Ms. Anderson.



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20114. I would continue to reiterate for all parties that the Panel would like to make sure that all the procedures that it's outlined with respect to AQs are followed.

20115. I don't see any other preliminary matters, so who's going to be introducing the panel this time? Mr. Friesen, are you?

20116. **MR. FRIESEN:** I will, Madam Chair, yes.

20117. **THE CHAIRPERSON:** And so there's a few extra members this time. Will you be doing it in under 30 minutes again?

20118. **MR. FRIESEN:** I certainly hope we can go even faster this time, yes.

20119. **THE CHAIRPERSON:** Well, it's not a race.

20120. Ms. Niro, would you please proceed with the swearing and affirming of the witnesses?

**GEORGE ARMSTRONG: Sworn**

**PHIL MURDOCK: Sworn**

**KEVIN CARRIGAN: Sworn**

**ROB TURNER: Affirmed**

**ERIK KIDD: Affirmed**

**DONALD ROUSSEL: Sworn**

**CHARLES HANSEN: Affirmed**

**MICHAEL DWYER: Sworn**

**WAYNE DUTCHAK: Affirmed**

**GLENN ORMISTON: Affirmed**

**SHANE WALTERS: Affirmed**

**JOSEF CHERNIAWSKY: Affirmed**

**KIM CONWAY: Affirmed**

**GWYN LINTERN: Affirmed**

**FRANÇOIS MARIER: Affirmed**

**PAUL TOPPING: Affirmed**

--- (A short pause/Courte pause)

20121. **THE CHAIRPERSON:** Good afternoon. I do believe this might be

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the record for the largest panel, so forgive us as we get organized with making sure we understand who everybody is.

20122. Dr. Blais-Stevens, are you on the line?

20123. **DR. ANDRÉE BLAIS-STEVENSON:** Yes, I am.

20124. **THE CHAIRPERSON:** Do you confirm that you remain under oath from your previous testimony?

20125. **DR. ANDRÉE BLAIS-STEVENSON:** Yes.

**ANDRÉE BLAIS-STEVENSON: Resumed**

20126. **THE CHAIRPERSON:** Thank you very much.

20127. Mr. Friesen?

20128. **MR. FRIESEN:** Madam Chair, I believe Dr. Cassidy also needs to confirm the same.

20129. **THE CHAIRPERSON:** Thank you very much.

20130. And Dr. Cassidy?

20131. **DR. JOHN CASSIDY:** Yes, I'm here.

20132. **THE CHAIRPERSON:** Thank you very much. And do you confirm that you remain under oath from your previous evidence that you've provided?

20133. **DR. JOHN CASSIDY:** Yes. Yes, I am.

20134. **THE CHAIRPERSON:** Thank you.

20135. **DR. JOHN CASSIDY:** Thank you.

**JOHN CASSIDY: Resumed**

**CARL BROWN: Resumed**

**CAROLE CAZA: Resumed**

**JOHN CLARKE: Resumed**

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**HEATHER DETTMAN: Resumed**  
**CHRIS DOYLE: Resumed**  
**GRANT HOGG: Resumed**  
**BRUCE HOLLEBONE: Resumed**  
**ALI KHELIFA: Resumed**  
**THOMAS KING: Resumed**  
**LAURA MACLEAN: Resumed**  
**MICHAEL ENGELSJORD: Resumed**

20136.           **MR. FRIESEN:** Thank you, Madam Chair.

20137.           I'm pleased to present the government participants second witness panel here today. Again, we have a mix of folks that have not been sworn in before and have appeared here before. Some folks have had their evidence adopted by affidavit. And where they haven't I will take them through just a briefest of direct examinations so that we can make our way through all 31 or I'm not sure if that's our final number but everyone in a timely fashion.

20138.           So I'll start here on my right.

**--- EXAMINATION BY/INTERROGATOIRE PAR MR. FRIESEN:**

20139.           **MR. FRIESEN:** Mr. George Armstrong, you are a Senior Response Officer in Environmental Response with the Canadian Coast Guard?

20140.           **MR. GEORGE ARMSTRONG:** That's correct.

20141.           **MR. FRIESEN:** And you are here to speak to Coast Guard's environmental response program?

20142.           **MR. GEORGE ARMSTRONG:** That's correct.

20143.           **MR. FRIESEN:** Your biography was filed as Exhibit E9-64-4 in these proceedings. Can you confirm that your biography as filed is accurate to the best of your knowledge and belief?

20144.           **MR. GEORGE ARMSTRONG:** Yes, I can.

20145.           **MR. FRIESEN:** Mr. Phil Murdock, to the right, is Superintendent of Environmental Response in the Western Region with the Canadian Coast Guard.

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He is here to provide technical expertise on the delivery of the federal environmental response program in the Pacific Region on behalf of the Coast Guard. An affidavit adopting Mr. Murdock's evidence was filed on the 18<sup>th</sup> of April this year as part of Exhibit E9-64-6.

20146. Mr. Kevin Carrigan is the Superintendent, Aids to Navigation with the Canadian Coast Guard. He is here to speak to the provision of navigational services to marine users of navigable waterways in the Pacific Region. He will be the lead for the Coast Guard's witnesses on Panel Number 2.

20147. An affidavit sworn by Mr. Carrigan was filed on April 23<sup>rd</sup> of this year, as Exhibit E9-66-2, which serves to adopt the written evidence of the Coast Guard as set out in the Federal Government Participant's Witness Panel Responsibility Chart, which was Exhibit E9-58-4.

20148. Next we have Mr. Rob Turner who is a Manager of Navigation Safety and Radio Communications with Transport Canada. He is here to provide specialist knowledge about navigation safety. An affidavit adopting Mr. Turner's evidence was filed on April the 18<sup>th</sup>, 2013 as part of Exhibit E9-64-6.

20149. To Mr. Turner's right is Mr. Erik Kidd. An affidavit has not been filed so I'll ask you a few questions.

20150. Mr. Kidd, you are a Pollution Prevention Officer with Transport Canada?

20151. **MR. ERIK KIDD:** That is correct.

20152. **MR. FRIESEN:** And you are here to provide specialist knowledge about Canada's marine oil spill preparedness and response regime?

20153. **MR. ERIK KIDD:** Correct.

20154. **MR. FRIESEN:** Now, your CV was filed as part of Exhibit E9-53-4 in this proceeding. Can you confirm that it was prepared by you or under your direction and control and is accurate to the best of your knowledge and belief?

20155. **MR. ERIK KIDD:** Confirmed.

20156. **MR. FRIESEN:** Thank you.

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20157. Mr. Donald Roussel is the Director General of Marine Safety and Security with Transport Canada. He is here to speak to all matters related to Canada's marine transportation regime. Mr. Roussel will be the lead witness for Transport Canada's witnesses on Panel Number 2.
20158. An affidavit sworn by Mr. Roussel was filed on April the 18<sup>th</sup>, 2013, as part of Exhibit E9-64-6, which serves to adopt both the written evidence of Transport Canada as set out in Exhibit E9-38-4, and Mr. Roussel's CV filed as part of Exhibit E9-53-4.
20159. To Mr. Roussel's right, we have Dr. Caroline Caza, who we have seen for the last number of days. She remains here to speak to general environmental assessment issues related to Environment Canada's evidence.
20160. Mr. Grant Hogg as well, appeared on witness panel 1, he continues to be here to speak to issues related to environmental emergencies.
20161. Dr. Bruce Hollebone, who we all know and love ---  
--- (Laughter/Rires)
20162. **MR. FRIESEN:** --- is here to speak to issues related to the behaviour of fate and oil again.
20163. And Dr. Heather Dettman, as well, appears from panel number 1. She's here to speak to issues of diluted bitumen composition and corrosivity.
20164. John Clarke from Natural Resources Canada, again, will be here and he will again be the lead witness for Natural Resources Canada's witnesses on this panel.
20165. Moving to the second row, on the far right, is Mr. Charles Hansen. He is the Manager of Compliance and Enforcement in the Pacific Region with Transport Canada. He is here to provide technical knowledge about the TERMPOL process. An affidavit adopting Mr. Hansen's evidence was filed on April the 18<sup>th</sup>, 2013, as part of Exhibit E9-64-6.
20166. To Mr. Hansen's right is Ms. Adele Cooper and Ms. Danielle Wensauer. Both are with Transport Canada and they'll be here in supporting

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capacity.

20167. To Ms. Wensauer's right is Mr. Michael Dwyer. Mr. Dwyer is the Regional Director of Marine Safety and Security in the Ontario region with Transport Canada. He is here to provide specialist knowledge about tanker inspections. An affidavit adopting Mr. Dwyer's evidence was filed on April the 18<sup>th</sup>, 2013, as part of Exhibit E9-64-6.
20168. To Mr. Dwyer's right is Ms. Laura Maclean who we have seen on panel 1. She remains here to speak to general environmental assessment issues related to Environment Canada's evidence.
20169. Dr. Ali Khelifa, to her right, remains here to speak to oil spill modelling issues.
20170. Mr. Phil Wong from Environment Canada remains on the panel as a supporting personnel. And to his right Mr. Chris Doyle remains on the -- on panel number 2 to speak to meteorology issues.
20171. In the back row -- I can almost see them -- we have Mr. Michael Engelsjord with DFO who was sworn in on Panel 1. He's appearing on Panel 2 in a supporting capacity although as he's been sworn in, he'll be able to answer any questions that may arise and be directed to him.
20172. And Mr. Thomas King, again, is appearing here today to speak to dispersion effectiveness and the fate and behaviour and transport of hydrocarbons in the marine environment.
20173. And I think now we move to those that are joining us by WebEx. Perhaps I can start in Vancouver.
20174. Mr. Dutchak, are you with me?
- (No response/Aucune réponse)
20175. **MR. FRIESEN:** Mr. Wayne Dutchak is a Superintendent of Waterways Management with the Canadian Coast Guard. He is here to provide technical expertise on all activities pertaining to channel maintenance pursuant to the program's mandate under Section 41 of the *Oceans Act* on behalf of the Canadian Coast Guard.

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20176. An affidavit adopting Mr. Dutchak's evidence was filed on April the 23<sup>rd</sup>, 2013 as Exhibit E9-66-3.
20177. Captain Glen Ormiston is joining us from Sidney this morning -- this afternoon -- excuse me. Captain Ormiston is the Search and Rescue Superintendent for the Canadian Coast Guard's Western Region. He is here to provide technical expertise on the delivery of the marine component of the Federal Search and Rescue System in the Western Region on behalf of the Coast Guard.
20178. An affidavit adopting Captain Ormiston's evidence was filed as Exhibit E9-66-4 in this proceeding on April 23<sup>rd</sup>, 2013.
20179. Mr. Shane Walters, also joining us in Sidney this morning -- this afternoon. I'm really having a hard time with my time today.
20180. Mr. Shane Walters is the Regional Program Specialist for the Canadian Coast Guard Marine Communications and Traffic Services in the Western Region. He is here to provide technical expertise on the function of five marine communications and traffic services centres on the B.C. Coast on behalf of the Coast Guard.
20181. An affidavit adopting Mr. Walters' evidence was filed on April the 23<sup>rd</sup>, 2013 as Exhibit E9-66-5.
20182. Dr. Josef Cherniawsky, are you with me?
20183. Can you hear me?
20184. **DR. JOSEF CHERNIAWSKY:** Yes, sir, yes.
20185. **MR. FRIESEN:** I'm going to ask you a few questions.
20186. **DR. JOSEF CHERNIAWSKY:** Yes.
20187. **MR. FRIESEN:** Dr. Cherniawsky, you are a Research Scientist with the Institute of Ocean Sciences with Fisheries and Oceans Canada?
20188. **DR. JOSEF CHERNIAWSKY:** Yes, correct.

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20189.           **MR. FRIESEN:** And you are here to speak to Fisheries and Oceans Canada's evidence on tsunami risk?

20190.           **DR. JOSEF CHERNIAWSKY:** Yes, I do.

20191.           **MR. FRIESEN:** Now, your CV was filed as part of Exhibit E9-53-4 in this proceeding.

20192.           Can you confirm that it was prepared by you or under your direction and control and is accurate to the best of your knowledge and belief?

20193.           **DR. JOSEF CHERNIAWSKY:** Yes, I do.

20194.           **MR. FRIESEN:** Now, Dr. Cherniawsky, have you previously given expert evidence before a regulatory tribunal before?

20195.           **DR. JOSEF CHERNIAWSKY:** No, never before.

20196.           **MR. FRIESEN:** Madam Chair, Dr. Cherniawsky is being tendered as an expert in numerical modeling of tsunami waves and currents, the modeling of ocean circulation and mixed layer dynamics and processing of satellite altimetry data for sea level variability studies.

20197.           **DR. JOSEF CHERNIAWSKY:** Yes, that's correct.

20198.           **THE CHAIRPERSON:** I confirm that we've not received any objections to qualifying the experts being seated on this Panel so I'll just pause briefly to see if there's anyone who wants to speak to Dr. Cherniawsky's qualifications.

--- (No response/Aucune réponse)

20199.           **THE CHAIRPERSON:** The Panel accepts Dr. Cherniawsky as an expert to give opinion evidence in the areas that you've identified, Mr. Friesen.

20200.           **MR. FRIESEN:** Dr. Carl Brown with Environment Canada appeared with us on witness Panel No. 1. He remains with us by WebEx today to speak to emergency science and technology issues.



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20201. We have also Dr. Andrée Blais-Stevens who is a Research Scientist of Geohazards with the Earth Sciences Sector of Natural Resources Canada. She's appearing by WebEx to speak to Natural Resources Canada's evidence related to landslides.

20202. Dr. Blais-Stevens was previously sworn in and qualified as an expert in these proceedings on November 23<sup>rd</sup>, 2012 in the area of landslides.

20203. Mr. Kim Conway?

20204. **MR. KIM CONWAY:** Yes, I'm here.

20205. **MR. FRIESEN:** You are a Physical Scientist in Marine Geosciences with the Geological Survey of Canada with Natural Resources Canada?

20206. **MR. KIM CONWAY:** That's correct.

20207. **MR. FRIESEN:** And you are here to speak to Natural Resources Canada's filed evidence concerning submarine landslides in Douglas Channel?

20208. **MR. KIM CONWAY:** That's correct.

20209. **MR. FRIESEN:** Your CV was filed as part of Exhibit E9-53-4 in this proceeding.

20210. Can you confirm that it was prepared by you or under your direction and control and is accurate to the best of your knowledge and belief?

20211. **MR. KIM CONWAY:** Yes, I can confirm that.

20212. **MR. FRIESEN:** And have you previously given expert evidence before a regulatory or court proceeding?

20213. **MR. KIM CONWAY:** No, I have not.

20214. **MR. FRIESEN:** Madam Chair, Mr. Conway's being tendered as an expert in the field of marine geology.

--- (A short pause/Courte pause)

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20215.           **THE CHAIRPERSON:** Mr. Friesen, with the number of witnesses in front of us, I wonder if you could give us a little bit more information on Mr. Conway's educational background.
20216.           **MR. FRIESEN:** Certainly could.
20217.           Mr. Conway, can you confirm for us -- would you like me to just present it or would you like me to speak with him?
20218.           **THE CHAIRPERSON:** Mr. Conway, can you give us a brief overview of your educational background, please?
20219.           **MR. KIM CONWAY:** Yes, I have a degree -- Bachelor's degree in Marine Biology, graduated in 1981. I have a minor -- essentially, a minor in marine -- in geology that I went through a program I took at the time of my undergraduate work and then subsequent to that.
20220.           **THE CHAIRPERSON:** Mr. Conway, can you describe for the Panel your experiences in the area that you're seeking to be qualified in?
20221.           **MR. KIM CONWAY:** Well, as my CV, I think, shows, I've published since 1991, I think, in excess of 50 publications in Marine Geology, perhaps 30 peer reviewed publications and quite a few internal government documents, current research within in our in-house publication process within the Geological Survey of Canada, plus probably 20 or 30 open file reports, including maps of sea floor areas and summaries of geological landscapes offshore and in various portions of offshore British Columbia.
20222.           **THE CHAIRPERSON:** Thank you very much, Mr. Conway.
20223.           The Panel accepts Mr. Conway as an expert to give opinion evidence in the area of Marine Geology, I believe you were seeking to have him qualified, Mr. Friesen?
20224.           Marine Geoscience?
20225.           **MR. FRIESEN:** Marine Geology. Yes, thank you, Madam Chair.
20226.           **THE CHAIRPERSON:** Marine Geology, yes.

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20227. In the area of Marine Geology.
20228. **MR. FRIESEN:** Next, we have Dr. John Cassidy.
20229. Dr. Cassidy is joining us from Vancouver by WebEx today but I understand will be appearing tomorrow in person on the Panel with us.
20230. Dr. Cassidy is a Research Scientist of Seismic Hazards with the Earth Sciences Sector of Natural Resources Canada. He is here to speak to Natural Resources Canada's evidence related to seismic hazards along the proposed pipeline corridor and adjacent areas.
20231. Dr. Cassidy was previously sworn in and qualified as an expert in these proceedings on November the 23<sup>rd</sup>, 2012 in the area of earthquake seismology.
20232. Dr. Gwyn Lintern, can you hear me?
20233. **DR. GWYN LINTERN:** Yes, I can.
20234. **MR. FRIESEN:** Dr. Lintern, you are a Research Scientist with the Geological Survey of Canada with Natural Resources Canada?
20235. **DR. GWYN LINTERN:** Yes, I am.
20236. **MR. FRIESEN:** And you are here to speak to Natural Resources Canada's evidence related to dredging coastal sedimentation and submarine landslides?
20237. **DR. GWYN LINTERN:** Yes, I am.
20238. **MR. FRIESEN:** Your CV was filed as part of Exhibit E9-53-4 in this proceeding.
20239. Can you confirm that it was prepared by you or under your direction and control and is accurate to the best of your knowledge and belief?
20240. **DR. GWYN LINTERN:** I can.
20241. **MR. FRIESEN:** And have you previously given expert evidence

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before a regulatory or court proceeding?

20242.           **DR. GWYN LINTERN:** No.

20243.           **MR. FRIESEN:** Madam Chair, Dr. Lintern is being tendered as an expert in coastal sedimentation and seabed stability.

20244.           **THE CHAIRPERSON:** Mr. Friesen, the Panel accepts Dr. Lintern as an expert to give opinion evidence in the areas that you've identified.

20245.           **MR. FRIESEN:** Thank you, Madam Chair.

20246.           I note that Dr. Lintern, while being in Vancouver today, will be joining us as well in person tomorrow.

20247.           **THE CHAIRPERSON:** Sounds like that flight tonight might be a little full.

20248.           **MR. FRIESEN:** And finally in Ottawa Mr. François Marier, can you hear me?

20249.           **MR. FRANÇOIS MARIER:** I can.

20250.           **MR. FRIESEN:** Mr. Marier, you are a Senior Policy Advisor and the Manager of International Marine Policy with Transport Canada?

20251.           **MR. FRANÇOIS MARIER:** Yes I am.

20252.           **MR. FRIESEN:** And you are here to speak to the issue of marine transportation pollution liability and compensation?

20253.           **MR. FRANÇOIS MARIER:** I am.

20254.           **MR. FRIESEN:** Your CV was filed as part of Exhibit E9-53-4 in this proceeding. Can you confirm that it was prepared by you or under your direction and control and is accurate to the best of your knowledge and belief?

20255.           **MR. FRANÇOIS MARIER:** Yes I can.

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20256.           **MR. FRIESEN:** Mr. Topping is with you I understand.
20257.           **MR. PAUL TOPPING:** Yes I am.
20258.           **MR. FRIESEN:** Mr. Paul Topping is the Manager of Environmental Protection with Transport Canada. He is here to provide specialist knowledge about marine pollution prevention including ballast water. An affidavit adopting Mr. Topping's evidence was filed on the 18<sup>th</sup> of April 2013, as part of Exhibit E9-64-6.
20259.           Subject to being told I'm incorrect, which I frequently am, I believe that's everyone.
20260.           **THE CHAIRPERSON:** I hear no noises of protest so I do believe, Mr. Friesen, you've done it. Congratulations.
20261.           **MR. FRIESEN:** Thank you.
20262.           **THE CHAIRPERSON:** And I wasn't timing you but done very effectively. Thank you very much for your level of organization.
20263.           Good afternoon, Ms. Kyle. Are you going to be asking the questions on behalf of Gitxaala Nation this afternoon?
20264.           **MS. KYLE:** Yes I will, Madam Chair.
20265.           **THE CHAIRPERSON:** Thank you. Please proceed.
- **EXAMINATION BY/INTERROGATOIRE PAR MS. KYLE:**
20266.           **MS. KYLE:** Thank you. Good afternoon Madam Chair, Panel Members and witnesses.
20267.           My name is Rosanne Kyle and with me is my colleague Virginia Mathers and we represent Gitxaala Nation.
20268.           So I just wanted to start with a follow-up question in relation to issues we heard about this morning and yesterday about sediment levels in the confined channel area. And Dr. Lintern, I think this question's probably best posed to you.

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20269. And I just want to confirm from information that was provided in the federal government's response to an Information Request by Gitxaala Nation IR 1.4.7, as I understand it, the federal government does not have data on suspended particulate matter in Wright Sound. Is that correct?

20270. **DR. GWYN LINTERN:** To my knowledge we don't have -- NRCan doesn't have information on that.

20271. **MS. KYLE:** All right. And it's my understanding as well and this is -- this was not the subject of the information request, just to clarify, but it's my understanding as well that the Government of Canada does not have data on suspended particulate matter in Principe Channel. Is that correct?

20272. **DR. GWYN LINTERN:** I haven't -- I haven't check specifically, but not to my knowledge.

20273. **MS. KYLE:** Okay. And any of the other witnesses, anything contrary to what Dr. Lintern's information is on those two questions?

--- (No response/Aucune réponse)

20274. **MS. KYLE:** Okay. Thank you.

20275. Now, some of the questions I was going to pose, you'll be happy to know, have already been covered either on Panel 1 or -- sorry, on Panel 1, either earlier today or earlier this week so I won't take you through those issues again which shorten my cross-examination.

20276. But I did have a question and probably suited to Dr. Caza in relation environmental assessment methodology, but certainly anybody's welcome to provide a response to my question.

20277. And that is that would you agree that in order to assess the effectiveness of mitigation measures it's necessary to understand what the potential effects might be?

20278. **THE CHAIRPERSON:** As the witnesses are getting ready to answer, I would just ask because of the size of the panel, each witness when you speak, would you please identify yourself before you begin speaking just so we make sure we've got it accurate for the transcript.

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--- (A short pause/Courte pause)

20279.           **DR. CAROLINE CAZA:** Thank you. I'm just going to let my colleague, Laura Maclean, answer that question for you.

20280.           **MS. KYLE:** Thank you.

20281.           **MS. LAURA MACLEAN:** Yes, good afternoon, Ms. Kyle.

20282.           I think just speaking in very general terms here it wouldn't necessarily be -- the effectiveness of mitigation measures could be studied independently of a particular project.

20283.           I'm thinking of we had some discussion this morning about the effectiveness of certain spill response techniques. Those can be studied in a laboratory context such that -- I mean it would always be helpful to understand the particular effects and the magnitude and direction of the effects that you're hoping to apply the mitigation to but the science of understanding mitigation is general and can take place outside of the context of an individual EA.

20284.           **MS. KYLE:** Okay, yes fair enough. But with respect to looking at whether a particular proposed mitigation measure would be effective to address a potential effect, one would need to know what that potential effect or range of potential effects might be. Would you agree with that?

20285.           **MS. LAURA MACLEAN:** I would, yes, and it's certainly the objective of environmental assessment is to look at residual effects that may remain following mitigation.

20286.           So in that context, yes, it's important to understand both the effect and the mitigation that might be applied and the residual effect, if any, that may then remain.

20287.           **MS. KYLE:** And we heard evidence earlier during Panel 1s testimony about the sinking versus floating issue and whether or not spilled dilbit would sink or float in a marine environment.

20288.           And would you agree with me that in order to assess the effectiveness of potential clean-up strategies one would need to consider whether the oil was

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floating or sinking?

20289.           **DR. CAROLINE CAZA:** I think there's several -- this is Caroline Caza with Environment Canada.

20290.           There are several ways we could approach answering that question. It does -- it's not really an environmental assessment question I believe.

20291.           We can provide a view from our experts in fate and effects and -- and in emergency response from that perspective. The Coast Guard may also want to provide a response in terms of the effectiveness of various response strategies.

20292.           So while we could make a general statement about it we may want to give an opportunity to other departments to add their views as well.

20293.           **MS. KYLE:** Certainly anybody who would like to provide an answer to that question is welcome.

20294.           **DR. BRUCE HOLLEBONE:** Bruce Hollebone for Environment Canada.

20295.           In general the -- whether an oil floats or sinks or possibly does both strongly effects the clean-up decisions you -- you would make and I may leave it to my colleagues in Coast Guard to talk about specifics of how that would -- would work out as they're the experts in that matter.

20296.           But certainly in terms of the selection of response strategies that would make a difference, yes.

20297.           **MS. KYLE:** And just to follow-up on that, Dr. Hollebone, and the -- the likelihood of success with a particular response strategy also would depend partly on whether the oil was floating or sinking. Would you agree with that?

20298.           **DR. BRUCE HOLLEBONE:** As a general statement yes, there are quite a lot of tricky specifics there though as well.

20299.           **MS. KYLE:** Thank you.

20300.           Does Coast Guard have anything to add to that response?



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20301.           **MR. PHIL MURDOCK:** Phillip Murdock, Canadian Coast Guard.
20302.           Nothing specific in terms of your question. I think we would -- we would go to Environment Canada we would -- we would seek their guidance in terms of what the product may or may not do and we would adapt our -- our technology, our response equipment to -- to fit that regime.
20303.           And, you know, we're talking about heavy oils and we do have equipment to deal with that.
20304.           **MS. KYLE:** Sorry, equipment to deal with heavy oils that have sunk?
20305.           **MR. PHIL MURDOCK:** We have limited experience I would say with heavy oils that have sunk. Our -- the majority of our experience is with product that has remained on the surface. That's been what we have seen with the experiences we have had.
20306.           **MS. KYLE:** And can you delineate what experiences you have had with oil that is -- has sunk?
20307.           **MR. PHIL MURDOCK:** I would say we have had no experience with sinking oil product.
20308.           **MS. KYLE:** Okay, thank you.
20309.           Anybody else want to weigh-in on that question?
- (No response/Aucune réponse)
20310.           **MS. KYLE:** Okay, thank you.
20311.           Ms. Niro, I wanted to go to Exhibit E9-6-15, please, at Adobe page 19. So this is evidence filed by Transport Canada. And Ms. Niro, if you could just scroll down a little bit there's a heading "Tanker Exclusion Zones Section 3.4.2.1".
20312.           And Mr. Roussel, I don't know if my next series of questions is best suited to you but certainly this is Transport Canada's evidence. But as I understand the evidence, the position of Transport Canada is that there is no moratorium on oil tanker operation in Canada's western waters. Is that correct?

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20313.           **MR. DONALD ROUSSEL:** That's correct. The voluntary tanker exclusion zone.
20314.           **MS. KYLE:** Right. And I just -- Ms. Niro, I wanted to scroll down to section -- or paragraph 65. And there's a statement there that you can read about the federal moratorium and Transport Canada's position on that issue.
20315.           And I note that it's bolded and I'm just curious why Transport Canada bolded this portion of their evidence when no other portions that I can see were bolded?
20316.           **MR. DONALD ROUSSEL:** To make sure that it's clearly understood as there's been a lot of discussions on that, either in the press or in the different mode of communications. So that it is clearly understood that there is no law and there is no regulations that prohibit tanker traffic in Canada.
20317.           **MS. KYLE:** And is it Transport Canada's position that there's also no policy of a federal moratorium for oil tankers?
20318.           **MR. DONALD ROUSSEL:** There's a policy regarding the voluntary tanker exclusion so -- as it is stated.
20319.           **MS. KYLE:** Yes, but it's your -- as Transport Canada's evidence that there's no broader policy with respect to a moratorium on all oil tanker traffic off the coast -- west coast of Canada?
20320.           **MR. DONALD ROUSSEL:** There's no regulatory or legislations in place prohibiting tanker traffic in the west coast of Canada.
20321.           **MS. KYLE:** Okay is it Transport Canada's evidence that there is no other policy in place other than the tanker exclusion zone in relation to oil tanker traffic off the west coast of Canada?
20322.           **MR. DONALD ROUSSEL:** We're not aware of any other.
20323.           **MS. KYLE:** Thank you.
20324.           And I take from your explanation as to why this particular statement is bolded is that there is a lack of consensus in Canada with respect to whether there

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is an oil tanker moratorium. Would you agree with me on that?

20325. **MR. DONALD ROUSSEL:** I don't agree with you on that. I don't have an opinion on that in particular.

20326. **MS. KYLE:** Well, would you agree that there are members of the Canadian public who are of the view that there is an oil tanker moratorium off the west coast of Canada?

20327. **MR. DONALD ROUSSEL:** Not necessarily agree with you. It's clear, our policy is very clear, the word -- the word "voluntary" is present in the -- in all our official communications and if people use that otherwise they are leading the general populations in misinformations.

20328. **MS. KYLE:** Okay so I'm not asking you what Transport Canada's position is I'm asking you what -- whether or not you're aware that -- and whether you would agree that there are members of the Canadian public who disagree with Transport Canada's position that there is no oil tanker moratorium?

20329. **MR. DONALD ROUSSEL:** I have no opinion on that.

20330. **MS. ANDERSON:** Madam Chair, if I might interject. I don't think that our witnesses are in a position to comment on individual opinions that members of the public might have. They're here to discuss their evidence as filed.

20331. **MS. KYLE:** Well, some of the members of the public that have voiced concerns are Aboriginal communities who have indicated that, in their view, and understanding, there is an oil tanker moratorium. So I do think it's a relevant issue given that Gitxaala Nation is a First Nation with concerns about this project and the tanker moratorium question.

20332. **THE CHAIRPERSON:** I believe that the witness has provided his answer.

20333. **MS. KYLE:** Yes, thank you, Madam Chair.

20334. So as I understand the evidence of Transport Canada, in section 3.4.2, Transport Canada is distinguishing between the voluntary tanker exclusion zone and a broader oil tanker moratorium. Is that correct?

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20335.           **MR. DONALD ROUSSEL:** That's correct.

20336.           **MS. KYLE:** Right. So you'd agree that as you've provided your evidence -- or in your evidence, the voluntary tanker exclusion zone is different than a tanker -- an oil tanker moratorium. Is that correct?

20337.           **MR. DONALD ROUSSEL:** There's no oil tanker moratorium. So I don't know why you're still quoting that. We have mentioned clearly that it is a voluntary exclusion zone. Full stop, that what you see is what you got.

20338.           **MS. KYLE:** And to the extent that there have been any references by -- in any of the evidence to an oil tanker moratorium, you don't take the position that that is equivalent to a tanker exclusion zone do you?

20339.           **MR. DONALD ROUSSEL:** A moratorium will be something that the government will have put in place through an appropriate legislations or regulations. There's none such a thing.

20340.           **MS. KYLE:** And why do you take the position that it would require legislation or regulation to have a moratorium?

20341.           **MR. DONALD ROUSSEL:** To make it mandatory and to be able to impose it officially against any people who will not comply with it.

20342.           So at this juncture what we got is a voluntary exclusion zone of operators who keep their vessel away from the coast, moving from Alaska to Puget Sound.

20343.           **MS. KYLE:** So my understanding with respect to these -- this voluntary tanker exclusion zone is that it was put in place due to concerns about environmental consequences if there was an oil spill from one of the tankers, oil tankers, transiting the west coast. Is that correct?

20344.           **MR. DONALD ROUSSEL:** Not quite an oil spill, but if the vessel get into difficulties giving times for the vessels to seek assistance and be able to make corrections if needed or if they need to do a repair, that they have sufficient time to be able to do it as they will be away from shore.

20345.           **MS. KYLE:** And I understand that the concern that the voluntary

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exclusion zone was meant to address was in relation to environmental risk to the coast of B.C. Would you agree with that?

20346. **MR. DONALD ROUSSEL:** Yes.

20347. **MS. KYLE:** And there was also concerns that the voluntary tanker exclusion zone is to help address with respect to the potential for tanker collisions with fishing vessels in B.C. waters?

20348. **MR. DONALD ROUSSEL:** Yes, that appear to be one of the other aspect that was taken into consideration.

20349. **MS. KYLE:** And is anybody on the panel aware of any other concerns that the voluntary tanker exclusion zone is meant to address?

--- (No answer/Aucune réponse)

20350. **MS. KYLE:** No? Okay, thank you.

20351. And as I understand the evidence in 3.4.2, the voluntary tanker exclusion zone is based on essentially two factors; the first being the drift rate of a disabled laden tanker, and the second being the time required for a suitable assist tug to arrive on the scene. Is that correct?

20352. **MR. DONALD ROUSSEL:** Not quite. In addition an element that the crew will need to do if they have an issue of safety. So if the vessel becomes not able to propel itself or have problems with his electrical systems and so forth.

20353. **MS. KYLE:** But my ---

20354. **MR. DONALD ROUSSEL:** So time to do a repair.

20355. **MS. KYLE:** Right. So my understanding is that that -- the intention behind that is to try to prevent one of these oil tankers from grounding on the B.C. coast. Is that fair?

20356. **MR. DONALD ROUSSEL:** That's correct, yes.

20357. **MS. KYLE:** And my understanding of the tanker exclusion zone is that looking at that -- those considerations that we just discussed, the conclusion

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was that tankers coming from Alaska should not come within 40 to 100 kilometres of the B.C. coast, depending on the area of the coast in question. Is that a correct interpretation?

20358.           **MR. DONALD ROUSSEL:** I think it's in mile. I think it's 25 to 75 mile -- nautical mile, but that's about -- that's about the area, Madam Chair.

20359.           **MS. KYLE:** Okay, so you said 25 to 75 miles?

20360.           **MR. DONALD ROUSSEL:** Yes, but Mr. Turner can give more detail.

20361.           **MR. ROB TURNER:** Thank you. Robert Turner, Transport Canada.

20362.           The exclusion zone, by necessity, it has to come down to the Strait of Juan de Fuca where the tankers can enter the Strait so you're actually closer to the -- to the shoreline.

20363.           But, generally -- and it varies along the Coast -- but generally the distance off, say, Vancouver Island is about 45 nautical miles and off Haida Gwaii is about 75.

20364.           But, again, it varies in accordance with the -- the findings of that drift study.

20365.           **MS. KYLE:** Great, thank you ---

20366.           **MR. ROB TURNER:** But I should -- if I could add that these are tankers that were not destined for Canada.

20367.           So the idea is rather than the distance they are going to the Juan de Fuca, then it was a fairly simple rationale to tell them to stay an extra distance off Canada as they were making their route to Juan de Fuca.

20368.           **MS. KYLE:** And just to -- I just want to confirm that I understood the answer that you gave, Mr. Turner, in relation to the radius of the -- of the area.

20369.           So it's 25 nautical miles west of Haida Gwaii? Is that correct, the tanker exclusion zone?

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20370.           **MR. ROB TURNER:** No, I estimated about 75 nautical miles.
20371.           It's a further distance off Haida Gwaii than Vancouver Island. It gets  
broader as you go north.
20372.           **MS. KYLE:** So 75 nautical miles off the coast of Haida Gwaii.
20373.           **MR. ROB TURNER:** Approximately.
20374.           **MS. KYLE:** Yes, thank you.
20375.           Now, my understanding is that the tanker exclusion zone was put in  
place in 1988?
20376.           Is that correct?
20377.           **MR. ROB TURNER:** Yes, that's my understanding.
20378.           **MS. KYLE:** And I understand as well that there was a prior  
restriction, albeit voluntary, known as the "TAPS routes" which were  
recommended routes between the Gulf of Mexico and West Coast ports that was  
established in 1977.
20379.           Is that correct?
20380.           **MR. ROB TURNER:** No, that's not my understanding.
20381.           My understanding was the TAPS routes were the Trans-Alaska  
Pipeline system routes. So they were from -- similarly, from Alaska to southern  
U.S. ports.
20382.           **MS. KYLE:** Okay.
20383.           And perhaps we'll just pull up an exhibit just to make sure that I am  
not misunderstanding something here. And, Ms. Niro, that would be Exhibit  
D72-14-39.
20384.           And so this is a document that's been filed as evidence in these  
proceedings. It appears to be a Government of Canada memo the subject of  
which are the "TAPS routes" and it's saying that there's a document attached

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which is an historical record of events that have occurred since the implementation of the TAPS routes on July 30<sup>th</sup>, 1977.

20385. Do you see that?

20386. So if we turn to the next page, it says that:

*“The following is a history of events pertaining to [those] [...] TAPS routes...”*

20387. And the first paragraph there, it’s saying that there were:

*“Nationally recommended tracks between the Gulf of Alaska and the West Coast ports [...] established effective 30 July 1977.”*

20388. So is that different from what you just told me, your understanding of the TAPS?

20389. **MR. ROB TURNER:** No, I believe that’s what I did say.

20390. **MS. KYLE:** Okay, thank you.

20391. **MR. ROB TURNER:** I thought it was you that mentioned going to the Gulf. I thought that was what you had indicated. So I was ---

20392. **MS. KYLE:** Sorry, you know what, you’re right, I said “Gulf of Mexico” and I meant “Gulf of Alaska”.

20393. **MR. ROB TURNER:** I thought we were talking about ---

--- (Laughter/Rires)

20394. **MS. KYLE:** That’s good you’re listening. It was a trick. I was trying to see if you were listening.

20395. **MR. ROB TURNER:** I thought we were talking about different things there ---

--- (Laughter/Rires)



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20396.           **MS. KYLE:** No, I'm sorry. That was definitely my mistake, in my notes actually. I wish I was in Gulf of Mexico, I guess is the thing.

--- (Laughter/Rires)

20397.           **MS. KYLE:** Right, thank you very much for that.

20398.           And again, my understanding is that these TAPS routes were again to -- to try to address concerns about environmental impacts from the grounding of an oil tanker.

20399.           Is that fair?

20400.           **MR. ROB TURNER:** Yes, as I understand the historical record, it's that, should a tanker become disabled for any reason, it would allow sufficient time for either a tug to be able to come to its assistance to prevent a tanker from drifting aground ashore or to allow time for the tanker to come to its own assistance by correcting the problem.

20401.           **MS. KYLE:** All right.

20402.           And further down in this exhibit -- I won't take you to it unless we need to go there -- but it's my understanding that those TAPS routes that were initially put in place in 1977 were cancelled by the U.S. Coast Guard in 1982.

20403.           Is that correct?

20404.           And we can definitely scroll down to where that is, which I think is actually, Ms. Niro, page 10 of that exhibit. Sorry, just one moment.

--- (A short pause/Courte pause)

20405.           **MS. KYLE:** Just one moment and I'll get the right page number.

20406.           I think it's actually Exhibit D72-14-40. Is that the one we're on?

20407.           Yeah, so I need to go to 40, sorry about that, Ms. Niro, and it's Adobe page 10.

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20408. And so again, this is a document that was released under the *Access to Information Act* about the tanker exclusion zone, Canada's West Coast and, in the third paragraph down, it states that:

*"In March 1982, the U.S. Coast Guard cancelled the TAPS routes."*

20409. Do you see that?

20410. **MR. ROB TURNER:** Yes, I do.

20411. **MS. KYLE:** Okay.

20412. And is that your recollection as well that the U.S. cancelled the routes in about 1982?

20413. **MR. ROB TURNER:** Well, it predates my time but -- with Transport Canada, but I would have the same record as you have there and I have no reason to believe it's not accurate.

20414. **MS. KYLE:** Thank you.

20415. And my understanding is that there were discussions, after it was cancelled, between Canada and the U.S. and that, in about 1988, a tanker drift study was undertaken.

20416. Is that correct?

20417. **MR. ROB TURNER:** I believe the tanker drift study was a couple of years before that because it was based on that that the 1988 exclusion zone was implemented.

20418. So it might have been in the years 85 to 87, somewhere in there.

20419. **MS. KYLE:** Okay, so at some point in the mid to late 1980s, a tanker drift study was undertaken; correct?

20420. **MR. ROB TURNER:** That's my understanding.

20421. **MS. KYLE:** Yes.

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20422.           And my understanding of that drift study was that it defined the area off Canada's West Coast where a disabled tanker could drift ashore before the arrival of salvage tugs in unfavourable weather conditions.
20423.           Is that your understanding of what the drift study defined?
20424.           **MR. ROB TURNER:** That is my understanding, yes.
20425.           **MS. KYLE:** And following that tanker drift study, I understand that the Canada Coast Guard and the U.S. Coast Guard as well as the American Institute of Merchant Shipping agreed on a new recommended -- or sorry, agreed on the tanker exclusion zone along the B.C. Coast in 1988.
20426.           **MR. ROB TURNER:** That's my understanding, yes.
20427.           **MS. KYLE:** So just to make sure that I'm understanding this, the tanker exclusion zone that is referenced in Transport Canada's evidence in these proceedings was established based on the tanker drift study.
20428.           Is that correct?
20429.           **MR. ROB TURNER:** Yes, to address the tankers -- southbound laden tankers from Alaska to the Strait of Juan de Fuca, yes.
20430.           **MS. KYLE:** Thank you.
20431.           And I take it that the tanker exclusion zone, therefore, represents the area in which Canada, including the Canadian Coast Guard, is comfortable having oil-laden tankers from Alaska transiting along the West Coast of B.C. in light of those environmental risks?
20432.           Is that a fair comment?
20433.           **MR. ROB TURNER:** Yes, for those tankers, that was a mitigating measure. That makes a lot of sense, yes, for those reasons you've stated.
20434.           **MS. KYLE:** Would you agree that that voluntary tanker exclusion zone is not going to apply to the Northern Gateway pipeline's tanker routes if this project's approved?

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20435.           **MR. DONALD ROUSSEL:** Yeah, it will not -- it was never made to be applied to tanker bound for Canada.

20436.           **MS. KYLE:** And of course, given that it's 75 nautical miles west of Haida Gwaii, Northern Gateway wouldn't be able to keep within that tanker exclusion zone in going in and out of the Port of Kitimat?

20437.           **MR. DONALD ROUSSEL:** And the exclusion zone, Madame Chair, was made -- it was not made for tankers that are bound to Canada. It's for tankers that were in transit from the Gulf of Alaska to Puget Sound, United States. So it was never made for the purpose of excluding bound vessel for Canadian port.

20438.           **MS. KYLE:** And -- but my question is the Northern Gateway tankers. If this project is approved, those tankers will be transiting outside the tanker exclusion zone. Would you agree with me on that?

20439.           **MR. DONALD ROUSSEL:** They will be bound to Canadian port in and out.

20440.           **MS. KYLE:** Right. So they'll be outside the tanker exclusion zone for part of their transit route?

20441.           **MR. DONALD ROUSSEL:** Of course, yes, they will be.

20442.           **MS. KYLE:** Okay, thank you.

20443.           And I understand from the evidence of Transport Canada that we pulled up earlier, that it's Canada's position that the only moratorium that exists along the west coast of Canada is in relation to offshore oil and gas development. Is that a fair characterization of the evidence?

20444.           **MR. DONALD ROUSSEL:** That's our understanding.

20445.           **MS. KYLE:** That's your understanding?

20446.           **MR. DONALD ROUSSEL:** Yeah.

20447.           **MS. KYLE:** Yes, thank you.

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20448.                Would you agree with me that there have been inconsistent statements made by the Canadian government in the last 10 years or so with respect to whether there is an oil tanker moratorium off the west coast of Canada?

20449.                **MR. DONALD ROUSSEL:** No, I don't agree.

20450.                **MS. KYLE:** You don't agree. Okay. Well, we're going to look at some documents and we can have a further discussion about that.

20451.                Are you aware that there have been ---

20452.                **MR. DONALD ROUSSEL:** Our colleague from NRCan want to bring some clarification?

20453.                **MR. JOHN CLARKE:** No, I'm sorry. John Clarke from NRCan. No, after all that I don't have anything to add but I do expect you're about to bring up the aids to cross-examination that you filed earlier?

20454.                **MS. KYLE:** Sorry, not immediately, there's some other documents I'll be taking you to.

20455.                **MR. JOHN CLARKE:** Yes, no. My apologies.

20456.                **MS. KYLE:** So -- and I pose this to the entire panel, not just to Mr. Roussel. I don't want to pick on Mr. Roussel.

20457.                But are you aware that there have been statements made by the federal government in the last 10 to 15 years to the effect that there is an oil tanker moratorium policy that was put in place off the coast of -- the west coast of Canada in 1972?

20458.                **MS. ANDERSON:** Madam Chair, if I might interject. I'm just reviewing the Panel's ruling with respect to topics with which Gitxaala Nation is permitted and not permitted to question on.

20459.                The Panel did rule that the nation was not approved to question on the federal government tanker moratorium off the coast of B.C. unless it is specifically raised in the Government of Canada evidence. And we seem to be straying quite far outside that now. We've been quite patient and been trying to -- and the witnesses have been trying to answer those questions but I think we're

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beginning to move into an area that is not anymore connected to the government's evidence.

20460.           **MS. KYLE:** Madam Chair, I anticipated this objection. The Joint Review Panel has stated in Procedural Direction Number 9, that the purpose of the questioning phase of this hearing is to ask questions in order to test the evidence that is filed on the record.

20461.           The federal government has filed evidence on the record in relation to the tanker moratorium. It's the bolded portion of their evidence that I took the witnesses to at the beginning of my cross-examination. Their evidence is that there is no moratorium and that the only moratorium is in relation to oil and gas development off the coast. And that was in Transport Canada's evidence at Exhibit E9-6-15.

20462.           Under Procedural Direction Number 9, I submit, that Gitxaala Nation has the right to test that evidence. It's not sufficient for Canada to be able to merely assert that there is no tanker moratorium without the intervenors having the ability to test that statement and that evidence.

20463.           The federal government itself has put these matters in issue by providing the evidence that they've provided on the tanker moratorium and the oil and gas development moratorium as well as the tanker exclusion zone. And I'd submit that it would be unfair to constrain the intervenor's ability to test that evidence, just like we have the right to test all other evidence that has been filed. There should be no special rules in relation to this particular piece of evidence that has been filed by the federal government.

20464.           There are some documents that I am going to take the witnesses to but these are all documents that are filed on the record and they're indeed documents of the federal government themselves through ATIP request. So there's not going to be any surprises or information that is not on the record that I put before these witnesses. The information I'll be taking them to has been on the record since December 2011, when Gitxaala Nation filed those materials.

20465.           And I would submit that the ruling that my friend has referred to does not constrain the ability of Gitxaala Nation to ask the questions, to test the evidence in relation to the tanker moratorium. The questions I'm going to ask relate specifically to testing the position of Canada in stating that there is no tanker moratorium off the west coast of Canada.

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20466. And I note as well that Mr. Carruthers, in his testimony on behalf of Northern Gateway Pipelines, also referred in his evidence to the tanker moratorium question. There are also documents filed on the record that I can certainly take the Panel to, if you wish, indicating that concerns were raised by Aboriginal groups, in particular, with respect to the tanker moratorium and its effect on this proposed project.

20467. And I would submit that if there is any question about there being a tanker moratorium in place off the west coast of Canada, that that is a factor that the Joint Review Panel should take into account, given that this project would require oil tanker traffic to transit the west coast of B.C.

20468. So in wrapping up, I would say it would be prejudicial to Gitxaala if they're unable to test this particular evidence filed by the federal government and that it would also be inconsistent with Procedural Direction Number 9 to deny Gitxaala the right to test that evidence.

20469. Thank you.

20470. **THE CHAIRPERSON:** As you mentioned, Ms. Kyle, it sounds like you were prepared for this objection.

--- (Laughter/Rires)

20471. **MS. KYLE:** Yes, indeed.

20472. **THE CHAIRPERSON:** Ms. Anderson?

20473. **MS. ANDERSON:** Sadly, I'm not quite as prepared as Ms. Kyle was for this particular objection.

20474. I would reiterate my statement that the Panel has already ruled on the scope of the testing of the cross-examination that can take place. If the question is whether there is a tanker moratorium in place, I believe that has been asked and answered by these witnesses.

20475. And so I'm not sure what documents my friend is referring to with respect to things that she wants to take them to -- take the witnesses to, but we're in your hands with that -- in that respect and we're, you know, as I say prepared to

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answer questions with respect to the evidence as filed.

20476.           **THE CHAIRPERSON:** Thank you very much, Ms. Anderson.

20477.           I think this is an opportune time to take our afternoon break.

--- (Laughter/Rires)

20478.           **THE CHAIRPERSON:** So let's do that and come back at 25 to 3  
please.

--- Upon recessing at 2:17 p.m./L'audience est suspendue à 14h17

--- Upon resuming at 2:33 p.m./L'audience est reprise à 14h33

20479.           **THE CHAIRPERSON:** Thank you very much.

20480.           So before the break, we had the objection that was raised by Ms.  
Anderson and spoken to by Ms. Kyle and then responded to by Ms. Anderson.

20481.           I would draw everybody's attention to the letter that the Joint Review  
Panel issued on the 30<sup>th</sup> of August, 2012 where we provided our ruling on the  
questioning of the Federal Government participants.

20482.           In terms of the Gitxaala Nation, there was a section set out where  
topics for which proposed questioning is not approved and part of that was  
Federal Government tanker moratorium off the Coast of B.C. and Canada's  
preparedness to respond to an oil spill off the Coast of B.C. except if addressed in  
the federal participant's evidence.

20483.           And it's the Panel's ruling that the discussion -- that a moratorium is in  
the federal participant's evidence and, therefore, we will allow questioning in this  
area.

20484.           So, Ms. Kyle, please proceed.

20485.           **MS. KYLE:** Thank you, Madam Chair.

**GEORGE ARMSTRONG: Resumed**  
**ANDRÉE BLAIS-STEVENSON: Resumed**  
**CARL BROWN: Resumed**



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**KEVIN CARRIGAN: Resumed**  
**JOHN CASSIDY: Resumed**  
**CAROLINE CAZA: Resumed**  
**JOSEF CHERNIAWSKY: Resumed**  
**JOHN CLARKE: Resumed**  
**KIM CONWAY: Resumed**  
**HEATHER DETTMAN: Resumed**  
**CHRIS DOYLE: Resumed**  
**WAYNE DUTCHAK: Resumed**  
**MICHAEL DWYER: Resumed**  
**MICHAEL ENGELSJORD: Resumed**  
**CHARLES HANSEN: Resumed**  
**GRANT HOGG: Resumed**  
**BRUCE HOLLEBONE: Resumed**  
**ALI KHELIFA: Resumed**  
**ERIK KIDD: Resumed**  
**THOMAS KING: Resumed**  
**GWYN LINTERN: Resumed**  
**LAURA MACLEAN: Resumed**  
**FRANÇOIS MARIER: Resumed**  
**PHIL MURDOCK: Resumed**  
**GLENN ORMISTON: Resumed**  
**DONALD ROUSSEL: Resumed**  
**PAUL TOPPING: Resumed**  
**ROB TURNER: Resumed**  
**SHANE WALTERS: Resumed**

**--- EXAMINATION BY/INTERROGATOIRE PAR MS. KYLE: (Continued/Suite)**

20486.           **MS. KYLE:** So I think the question that I had posed just before the objection from my friend was whether or not -- I think Mr. Roussel -- I think I was speaking with you -- whether you are aware that there have been statements made by the Federal Government to the effect that there is an oil tanker moratorium that was put in place in 1972?

20487.           **MR. DONALD ROUSSEL:** Thank you, Madam Chair.

20488.           I've been informed by my colleague from NRCan and some from Environment Canada and my support people that we have responded to that in IR 1-12. And I've been also informed that there were some statements by some --

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either in the public domain by politicians -- where there had to correct the statement they made when they were talking about the formal moratorium and what you have as evidence is the positions of the Government of Canada.

20489.           There were also two private bill members that was intended to formally put tanker exclusion zone in law -- Bill C-437 and Bill C-606 -- that were not supported by the Government.
20490.           **MS. KYLE:** And just with respect to those bills, Mr. Roussel, those were, I believe in 2010?
20491.           Is that correct?
20492.           **MR. DONALD ROUSSEL:** The first one was in 2011, Bill C-606, and the other one be Bill C-437 was in June, 2012.
20493.           **MS. KYLE:** Thank you.
20494.           **MR. DONALD ROUSSEL:** And they were not supported by the Government.
20495.           **MS. KYLE:** Thank you.
20496.           And with respect to the information about statements by the Federal Government to the effect that there was an oil tanker moratorium put in place in 1972, did you consider those statements or did Transport Canada consider those statements prior to providing evidence to the Joint Review Panel?
20497.           **MR. DONALD ROUSSEL:** On these particular elements, Madam Chair, all the informations was reviewed and clarifications were seeked and what you have as -- in our evidence is the clear demonstrations that we put in bold to clearly say that it was a voluntary tanker exclusion zone.
20498.           And these do not apply to tanker coming in and out of Canada, either in the southern part of the province or for the purpose of supplying for commerce or substainabilities, diesel oil, gasoline or any other product that are used on a daily basis by the people of British Columbia.
20499.           **MS. KYLE:** And, Mr. Roussel, are you aware of the public review panel led by -- sorry, Roland Priddle that was undertaken in the early 2000s in

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relation to oil and gas activities off the Coast of B.C.?

20500.           **MR. DONALD ROUSSEL:** I think these questions need to go to NRCan.

20501.           **MS. KYLE:** Okay.

20502.           **MR. DONALD ROUSSEL:** That was done under their review.

20503.           **MS. KYLE:** Mr. Clarke?

20504.           **MR. JOHN CLARKE:** John Clarke, NRCan.

20505.           I'm aware of the title of the report that you're referring to, yes.

20506.           **MS. KYLE:** And you're aware that that report looked at a moratorium on oil and gas activities off the Coast of B.C.?

20507.           **MR. JOHN CLARKE:** Yes, I am aware of that.

20508.           **MS. KYLE:** And when Transport Canada provided its evidence to the effect that there is no federal moratorium applying to tanker operation, did they consider either the terms of reference or the recommendations of the public review panel led by Mr. Priddle?

20509.           **MR. JOHN CLARKE:** It's John Clarke for NRCan.

20510.           I'm not in a position to speak to what Transport Canada looked at but I do think it would be helpful if we pulled up the evidence the Government of Canada has filed on those reports.

20511.           It would be -- it is the evidence that Mr. Roussel referred to, the IR responses of the Gitxaala Nation.

20512.           **MS. KYLE:** Certainly.

20513.           **MR. JOHN CLARKE:** E9-21-09, Adobe pages 98 through 99.

20514.           **THE CHAIRPERSON:** Mr. Clarke, when you're answering, if I could ask you to pull the microphone closer just to make sure that you could be

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clearly heard?

20515. Thank you.

20516. **MR. JOHN CLARKE:** As long as I'm not speaking too quickly.

--- (Laughter/Rires)

20517. **THE CHAIRPERSON:** So many things to remember; aren't there?

--- (Laughter/Rires)

20518. **MR. JOHN CLARKE:** John Clarke.

20519. Adobe page 98 through 99.

20520. **MS. KYLE:** I'm sorry, can you just clarify what IR this was, please?

20521. **MR. JOHN CLARKE:** Sorry, this does seem to be IR 1.12.

20522. **MS. KYLE:** From whom?

20523. **MR. JOHN CLARKE:** Oh sorry, I thought it was from -- I believe it was from the Gitxaala Nation but I might be mistaken.

20524. So we would have to scroll up.

20525. **MS. KYLE:** I just want to confirm that that's the case.

20526. Actually, it's fine, my colleague, Ms. Mathers, has confirmed that it is the Gitxaala Nation Information Request. Thank you, Mr. Clarke.

20527. **MR. JOHN CLARKE:** Thank you.

20528. And so I think some of your questions were going to: Is there -- was there incorrect information put out by the Government of Canada on the existence of a tanker moratorium and ---

20529. **MS. KYLE:** I'm sorry, where does it say that there was incorrect information put out by Canada?

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20530. **MR. JOHN CLARKE:** If you scroll down to the next page, please, Ms. Niro?

20531. In 1972, the Government of -- the terms of reference for the Panel contained the following statement:

*“In 1972, the Government of Canada imposed a moratorium on crude oil tanker traffic through the Dixon Entrance, Hecate Strait, and Queen Charlotte Sound due to concerns over potential environmental impacts. However, this statement was not correct.*

*In 1972, the Government of Canada imposed a moratorium on oil and gas exploration and development activities offshore British Columbia, not a moratorium on crude oil tanker traffic.”*

20532. The full text of the errata -- so that would be the error I'm referring to -- can be viewed on NRCan's website. It's reprinted below but I know the Panel Chair will not want me to read it out.

--- (Laughter/Rires)

20533. **THE CHAIRPERSON:** Thank you, Mr. Clarke. You're right.

20534. **MS. KYLE:** So my understanding is that the terms of reference for the public review panel were issued -- just bear with me for one moment here till I find the date. Of course I can't find it now. Was it about 2004; is that correct?

20535. **MR. JOHN CLARKE:** I'm sorry -- John Clark for NRCan -- I don't have the date in front of me either.

20536. **MS. KYLE:** Let me find the reference and we'll pull it up.

20537. **MR. JOHN CLARKE:** Subject to check, I'm willing to accept that it's 2004 though.

20538. **MS. KYLE:** Yeah, so it was October 29<sup>th</sup> -- thank you to my friend. October 29<sup>th</sup>, 2004. I take it you don't disagree with that as being the date?

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20539. **MR. JOHN CLARKE:** John Clarke.

20540. I don't have reason to disagree, no.

20541. **MS. KYLE:** Okay. And my understanding is that the errata that is referenced in the IR response by the federal government was issued -- and again just bear with me -- in 2009. Is that correct?

20542. **MR. JOHN CLARKE:** That does match my understanding, yes.

20543. **MS. KYLE:** So the correction to these Terms of Reference were issued five years after the public report of the public review panel was issued?

20544. **MR. JOHN CLARKE:** Yes, that's my understanding of it.

20545. **MS. KYLE:** And I just want to direct a question on this to Transport Canada, given that it's their evidence about the moratorium.

20546. Did Transport Canada consider the Terms of Reference or the recommendations or statements made in the public review panel that was issued in October 2004, prior to giving their evidence on this issue?

--- (A short pause/Courte pause)

20547. **MR. DONALD ROUSSEL:** Thank you.

20548. No, it appears that that was not done during the time of the filing of our evidence, this was done pre year or two. We did file ---

20549. **MS. KYLE:** I'm ---

20550. **MR. DONALD ROUSSEL:** We did file evidence in December 2011.

20551. **MS. KYLE:** Sorry, I just missed the middle part of your answer. So you did not ---

20552. **MR. DONALD ROUSSEL:** We filed our evidence in December 2011, Madame Chair.

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20553.           So your question was this erratum was fine in 2009 and corrected in 2009. So my understanding of your question is did we take this into consideration when we filed the evidence in 2011. Well, the erratum was already corrected.
20554.           **MS. KYLE:** So you did not consider the Terms of Reference or the statements or recommendations made in the public review report before you provided the evidence in December 2011?
20555.           **MR. DONALD ROUSSEL:** We provided the evidence with the information we had in 2011.
20556.           **MS. KYLE:** So did you consider the errata before you provided your evidence in December 2011?
20557.           **MR. DONALD ROUSSEL:** The errata was corrected in 2009.
20558.           **MS. KYLE:** Yeah, so did Transport Canada take that errata into account when they provided their evidence on the tanker moratorium in December 2011?
20559.           **MR. DONALD ROUSSEL:** Well, we did take into consideration the tanker exclusion zone as we understand it.
20560.           **MS. KYLE:** But did you specifically take into account the original Terms of Reference as referenced in the IR response and the errata ---
20561.           **MR. DONALD ROUSSEL:** No.
20562.           **MS. KYLE:** --- to those Terms of Reference? No, okay.
20563.           **MR. DONALD ROUSSEL:** No, no.
20564.           **MS. KYLE:** Thank you.
20565.           So I do want to look at some documents that have been filed in relation to that public review panel. The first exhibit is D72-15-13, Ms. Niro, at Adobe -- sorry, just the first page there is statement of work, Natural Resources Canada, federal public review of the moratorium on B.C. offshore oil and gas activities, public review panel, statement of work.

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20566. Anybody disagree with me that this relates to the public review panel on oil and gas activities off the coast of B.C. that was issued in 2004?

--- (No response/Aucune réponse)

20567. **MS. KYLE:** And if we turn to page 4 -- Adobe page 4. So this is a document, as you saw on the first page, that was a statement of work issued by the Government of Canada.

20568. Sorry, I think, Ms. Niro, you were on page 4, I just didn't realize it. In the background section to this statement of work if you could please review the first paragraph in the background section starting, "In 1972, the Government of Canada imposed a moratorium on crude oil tanker traffic".

20569. And, Mr. Roussel, when you're done reading that if you could just let me know.

20570. Okay, so would you agree with me that this statement of work for the public review of the moratorium in B.C. offshore oil and gas activities explicitly states that Canada imposed a moratorium on crude oil tanker traffic through Dixon Entrance, Hecate Strait and Queen Charlotte Sound in 1972 because of concerns about environmental impacts?

20571. **MR. DONALD ROUSSEL:** The answer needs to come from NRCan. That's an NRCan document. And we're working from a statement of work, which is far from, Madame Chair, legislations or regulations or a former Order in Council from the Government of Canada. That could have been made by any clerk anywhere 40 years ago. But I'll let NRCan answer.

20572. **MS. KYLE:** Thank you.

20573. Mr. Clarke, would you agree that this statement of work does refer to that 1972 moratorium on oil tanker traffic?

20574. **MR. JOHN CLARKE:** And this statement of work is just the -- yes, as Mr. Roussel noted, it's a statement of work from NRCan. It contains the same error that we issued an erratum for. These documents were all prepared in or about the same time. We did make the same error. It's an NRCan document.

20575. **MS. KYLE:** I'm sorry, Mr. Clarke, could I just get you to sit closer.



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Thank you.

20576.           **MR. JOHN CLARKE:** It is an example of the error that NRCan made. And I already brought us forward the evidence of NRCan filed an errata to say that we had published a Terms of Reference that said there was an oil tanker moratorium in 1972 but in fact that's not the case.

20577.           We've already filed evidence and I've read it out now that said that there was no oil tanker moratorium in 1972; that our references to that were incorrect, we made an error. So this is just a repetition of that error again in a different document, but it is the same error, and I think I've answered this question.

20578.           **MS. KYLE:** Okay. So are you suggesting -- because I am going to take you to a few documents. Are you suggesting that every time the Government of Canada has previously stated that there was an oil tanker moratorium off the west coast of Canada imposed in 1972 that that was an error?

20579.           **MR. JOHN CLARKE:** I'm going to state that where NRCan made those statements. But if you want to take me to a different document we can look at that one too.

20580.           **MS. KYLE:** Okay. So the answer was yes whenever NRCan makes that statement in documents?

20581.           **MR. JOHN CLARKE:** Subject to you finding an example I'm sorry, I -- you know, subject to you showing me an example to the contrary, but the ones I'm aware of in the evidence and the evidence that's filed here, those are all examples of NRCan having repeated the same error.

20582.           **MS. KYLE:** Okay. Thank you.

20583.           And would you agree that that first paragraph in this statement of work for the public review panel refers to there being one moratorium but that moratorium started as a crude oil tanker traffic moratorium and then was extended to include oil and gas activities.

20584.           Would you agree that that's the way it's presented there in the first paragraph?

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20585.           **MR. JOHN CLARKE:** Yes, I believe I've already explained I believe these statements to be in error. So expounding on -- you know ---
20586.           **MS. KYLE:** Yes, and I have your evidence on that. But I just want to get your confirmation with my reading that you agree with my reading of that that the way that this moratorium is described in this statement of work is that Canada first imposed a moratorium on crude oil tanker traffic and then subsequently extended that moratorium to include offshore oil and gas activities. Would you agree that's how it's described?
20587.           **MR. JOHN CLARKE:** Yes, certainly those are the words on the page there, yes.
20588.           **MS. KYLE:** Thank you.
20589.           And Mr. Roussel, before Transport Canada provided its evidence to the Joint Review Panel on the tanker moratorium, did Transport Canada have any discussions with NRCan about statement that NRCan had made in the past about the tanker moratorium?
20590.           **MR. DONALD ROUSSEL:** Yes, we did do some exchange of information when those issue were raised, Madame Chair.
20591.           **MS. KYLE:** Thank you, and what information was exchanged in that regard?
20592.           **MR. DONALD ROUSSEL:** Regarding the errata.
20593.           **MS. KYLE:** Right.
20594.           **MR. DONALD ROUSSEL:** Madame Chair, I think the errata was highlighted in 2009. Our evidence is clear on the fact that it is a voluntary tanker exclusion zone. Two Bill were tabled in Parliament, one in March 2011, the other one in June 2012. The Government of Canada make it clear that they didn't want to legislate on these matters.
20595.           So for us at this juncture, it is what it is, it's a voluntary tanker exclusion zone that do not impose any restrictions of tanker coming in and out of Canada.

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20596.           **MS. KYLE:** Thank you, Mr. Roussel, but my questions don't relate to those Private Members Bills, they relate to statements previously made by the Government of Canada in relation to oil tanker moratoriums, so I think those are two distinct issues.

20597.           I wanted to turn now, Ms. Niro, to -- it's the same exhibit, D72-15-13, but Adobe page 8, please, Ms. Niro. Thank you.

20598.           So this is part of a statement of work that we referred to earlier. It provides some background information and under "Federal Response" -- if Ms. Niro, you could scroll down, thank you -- if you could please read the first statement, I guess Mr. Clarke and Mr. Roussel in relation to any future change by Cabinet.

20599.           So in this document prepared by the federal government, in relation to the Public Review Panel, would you agree with me that in the background section, there is reference to:

*"Any future change[s] [...] to the [...] west coast moratorium policy [would require] a Strategic Environmental Assessment, as a result of a Cabinet Directive in 1996..."*

20600.           **MR. JOHN CLARKE:** It's John Clarke for NRCan.

20601.           The reference to the strategic environmental assessment is -- you know, what the purpose of these documents were, we were, at the point, the Government of Canada was looking at offshore oil and gas exploration and development activities. So the references to the strategic environmental assessment are in that context.

20602.           **MS. KYLE:** Okay. Well, this document though -- again if you scroll up Ms. Niro to the top -- it repeats again that the moratorium was on oil -- crude oil tanker traffic that was subsequently extended to oil and gas activity. So it's in that context I would suggest that they're making the comment that there needed to be a strategic environmental assessment, as required by a Cabinet Directive. Would you agree with me that that's what this document would suggest?

20603.           **MR. JOHN CLARKE:** No, I'm sorry because there was no moratorium on crude oil tanker traffic. The only sentence -- in that first paragraph that the strategic environmental assessment could refer to then is the

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one that did exist and that is explained, again, in our evidence, is the moratorium on oil and gas activities, those being exploration and development in the offshore.

20604.           **MS. KYLE:** And have you reviewed the Cabinet Directive in 1996 and the revised Cabinet Directive in 1999?

20605.           **MR. JOHN CLARKE:** I'm aware of both directives as part of my -- my current duties, yes.

20606.           **MS. KYLE:** Okay. And can you advise whether or not they relate only to offshore oil and gas development or whether they relate to oil and gas activities?

20607.           **MR. JOHN CLARKE:** The Cabinet Directive is the Cabinet Directive on the environmental assessment of policy, plan and programs. So it's a Cabinet Directive that requires there to be a consideration by Cabinet of the environmental implications of any proposal put before Cabinet before a decision is taken.

20608.           So you can find a copy of that Cabinet Directive on the Canadian Environmental Assessment Agency's website. There's a Privy Council Office document that provides guidelines on how the federal government conducts strategic environmental assessments.

20609.           And while I'm talking, NRCan has a very helpful website on our -- how we implement the strategic environmental assessment policy at NRCan.

20610.           **MS. KYLE:** So ---

20611.           **THE CHAIRPERSON:** Mr. Clarke, we're just going to have to get you to pull that microphone closer ---

--- (Laughter/Rires)

20612.           **THE CHAIRPERSON:** And you're going to have to slow down, thank you.

20613.           Our interpreters are working hard to keep up with you, but there's a limit to their abilities to keep going. So if you could just make sure that it's nice and close by and that you slow down just a little. Thank you.

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20614. **MR. JOHN CLARKE:** Thank you, Madam Chair.

--- (Laughter/Rires)

20615. **MS. KYLE:** So given that description of the Cabinet Directive, would you agree with me that if there was indeed a moratorium that included restrictions on crude oil tanker traffic transiting off the west coast of B.C., that that would require this strategic environmental assessment -- sorry, to change -- to change that moratorium would require a strategic environmental assessment.

20616. **MR. JOHN CLARKE:** So because the Cabinet Directive is so broadly framed I can say that any policy -- any document brought forward for Cabinet decision-making is supposed to be accompanied by a full consideration of the environmental implications -- the important environmental implications of that decision.

20617. So if a document like that was brought forth for a Cabinet decision, there would have to be something -- some sort of strategic environmental assessment completed in parallel with that Cabinet decision, yes.

20618. **MS. KYLE:** And Mr. Roussel, did Transport Canada consider the Cabinet Directive from 1996, as revised in 1999, prior to providing the evidence in relation to the tanker moratorium?

20619. **MR. DONALD ROUSSEL:** We have not considered the strategic environmental assessment.

20620. **MS. KYLE:** Or the Cabinet Directive?

20621. **MR. DONALD ROUSSEL:** No, not on -- not on this particular one.

20622. **MS. KYLE:** Okay, thank you.

20623. And Mr. Clarke, would you agree that it appears from the statements in section 1.1 of this exhibit that the public review panel process was supposed to be a strategic environmental assessment of the moratorium?

20624. **MR. JOHN CLARKE:** John Clarke, NRCan.

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20625. The moratorium on offshore oil and gas development.
20626. **MS. KYLE:** And why do you say it was only with respect to oil -- offshore oil and gas development given that this document references oil and gas activities?
20627. **MR. JOHN CLARKE:** John Clarke, NRCan.
20628. Those are the activities for which there is a federal moratorium and that's explained in our errata.
20629. **MS. KYLE:** Would you agree that whatever the moratorium included, the intention of the public review was to be the environmental assessment -- strategic environmental assessment of that moratorium, leaving aside what the moratorium included? Would you agree that this public review panel process was to be the strategic environmental assessment of that moratorium?
20630. **MR. JOHN CLARKE:** John Clarke for NRCan.
20631. No, that's not my understanding.
20632. **MS. KYLE:** So is your understanding that the public review process was not a strategic environmental assessment?
20633. **MR. JOHN CLARKE:** My understanding is that this -- the public review process was not a strategic environmental assessment of a moratorium on offshore oil tanker traffic, no.
20634. **MS. KYLE:** No, that's not my question. So let's put aside our -- our debate here about whether the moratorium included a moratorium on tanker traffic.
20635. Would you agree that, whatever the moratorium consisted of, this public review panel process was to be the strategic environmental assessment process in relation to lifting that moratorium?
20636. **MR. JOHN CLARKE:** Sorry, but it is -- it is hard for me to answer this question and put aside without saying that there was no intention to the best of my understanding for there to be a strategic environmental assessment of

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offshore oil tanker traffic.

20637. This was intended to inform the strategic environmental assessment of the moratorium that did exist and that was the moratorium on offshore oil and gas.

20638. **MS. KYLE:** Okay. Thank you.

20639. So now, I want to turn to Exhibit D72-15-17 and this, again, is a document obtained through an Access to Information Request to the Federal Government and the email -- cover emails referencing an attached slide deck.

20640. So over the page, Ms. Niro, please. And this is going to be -- can we rotate it, otherwise, we're all going to have to tilt our heads. Thank you very much. You worked your magic again.

20641. So this is a slide deck, as the cover email states, entitled "Planning Sessions, Public Review of the Federal Moratorium on Oil and Gas Activities Offshore British Columbia".

20642. It indicates, if you scroll down, Ms. Niro, that it's provided by Canada in January, 2004. It does not indicate which department of Canada it was provided by but if we turn to page -- sorry, one moment, page 13 I believe, Ms. Niro, of that exhibit?

20643. If you could just please read the title and the first bullet of that exhibit?

20644. And, Mr. Clarke, would you agree with me again that this document references that Canada imposed a tanker moratorium in 1972 that was later extended to other activities?

20645. **MR. JOHN CLARKE:** John Clarke for NRCan.

20646. Yes, that's -- that's what the slide says.

20647. **MS. KYLE:** And do you know if this slide deck was prepared by NRCan?

20648. **MR. JOHN CLARKE:** I'm sorry, I do not.

20649. **MS. KYLE:** And I also want to take you to another slide deck which

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is Exhibit D72-15-19, Ms. Niro.

20650. This one's entitled "Planning Session for the Public Review of the Federal Moratorium on Oil and Gas Activities Offshore British Columbia".

20651. Again, if we scroll down, Ms. Niro, indicates it's prepared by Canada January, 2004 but it doesn't provide a department.

20652. And if we go to page 8 of that document again? If you read the title and first bullet?

20653. And, again, would you agree with me that this slide deck also refers to a 1972 tanker moratorium that was later extended to other offshore activities?

20654. **MR. JOHN CLARKE:** John Clarke for NRCan.

20655. That is what the slide says, yes.

20656. **MS. KYLE:** And do you know if this slide deck was prepared by NRCan?

20657. **MR. JOHN CLARKE:** I'm sorry, I do not.

20658. **MS. KYLE:** And, Mr. Roussel, do you know if either of those slide decks were prepared by Transport Canada.

20659. **MR. DONALD ROUSSEL:** I do not know.

20660. **MS. KYLE:** Thank you.

20661. So we talked earlier about the errata to the terms of reference. I'd actually like to -- to go to the actual terms of reference for the public review panel.

20662. And, Madam Chair, Gitxaala Nation did file the full report in December, 2001 but we filed links only to those -- to that document and, in preparing the cross-examination we realized that by doing that we wouldn't actually have the page numbers, the actual document and the pages filed with the registry so I provided the Joint Review Panel as well as my friend with that aid to questioning that takes out the excerpted portions that we want to put to the



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witnesses today.

20663. So, Ms. Niro, that would be the AQ, the public review panel report. Thank you. And if we can go to the AQ, page 5 of that report.

20664. So again, this is the actual "Public Panel Review Report" as the title of Appendix A1 says and this is an appendix to that report. And if you could go down to the next page, I believe, Ms. Niro? Thank you.

20665. So these are the -- sorry, Ms. Niro, if you could just scroll back up, I forgot to explain one thing. Just scroll up a little bit further.

20666. Would you agree with me, Mr. Clarke, that this Appendix A1 constitutes the terms of reference for the public review panel?

20667. **MR. JOHN CLARKE:** John Clarke for NRCan.

20668. Yes, and this is precisely the Appendix A1 of this report that's expressly what's mentioned in the errata I've been referring to a few times today.

20669. **MS. KYLE:** Okay. Thank you.

20670. So, Ms. Niro, the next page, please? Thank you.

20671. And again, we see the statement at the beginning of the "Background" that there was a moratorium on crude oil tanker imposed in 1972 in Dixon Entrance, Hecate Strait and Queen Charlotte Sound that was subsequently extended to include oil and gas activities.

20672. Do you see that and do you agree that that's what it says?

20673. **MR. JOHN CLARKE:** It's John Clarke for NRCan.

20674. I'm certain I've said this is the -- this is the topic of the errata which I've already referred to and I actually read that sentence out I think -- I think.

20675. **MS. KYLE:** Yes.

20676. **MR. JOHN CLARKE:** Okay.

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20677.           **MS. KYLE:** So you agree that the original terms of reference for the public review panel expressly referred to a 1972 crude oil tanker traffic moratorium?
20678.           **MR. JOHN CLARKE:** John Clarke for NRCan.
20679.           Yes. Yes, it does.
20680.           **MS. KYLE:** Okay. Thank you.
20681.           And, Mr. Clarke, sorry to keep you on the hot spot on this but you seem to be the most knowledgeable about -- about these documents.
20682.           So I also want to just ask if you're aware of the Royal Society of Canada review that happened basically in tandem with the public review process in relation to the oil and gas moratorium?
20683.           **MR. JOHN CLARKE:** It's John Clarke for NRCan.
20684.           I'm aware it exists but not much more than that.
20685.           **MS. KYLE:** Okay.
20686.           So I'd like to turn the report up and, Ms. Niro, that's Exhibit D72-17-20.
20687.           And again, Madam Chair, this was a document that we also filed through a link but because the actual pages weren't filed, we provided an aid to questioning to the Joint Review Panel as well as my friend.
20688.           So this is the -- sorry, Ms. Niro. So this is -- just to explain what we're talking about, this was the exhibit that was filed that has the various documents and, Ms. Niro, my apologies but if you could pull up the second AQ that Gitxaala Nation provided on Monday?
20689.           So this is, as you can see, Mr. Clarke, the report of the expert panel on Science Issues Related to Oil and Gas Activities Offshore B.C. This isn't the full report but if we turn to -- to page 4, Adobe page 4 -- is there a highlighted section there? Yes.

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20690. So these are the conclusions of the Royal Society of Canada in their review of the moratorium. And if you could read the statement under “Conclusions” regarding the moratoria and you’ll note that they say “moratoria”, plural, on oil and gas activities.
20691. And would you agree that, in this report, the Royal Society of Canada is referring to moratoria, plural, that were put in place because of concerns that oil and gas activities including tanker traffic transiting through the area would unduly endanger the environmental health of the region?
20692. Do you see that and do you agree that’s what it states?
20693. **MR. JOHN CLARKE:** Yes.
20694. **MS. KYLE:** And if we turn to the next page, Ms. Niro, please?
20695. So these are actually, again, the conclusions of the Royal Society of Canada in their review of what they call the “moratoria”. If you could read the highlighted portion of that document, please, Mr. Clarke?
20696. And would you agree that the Royal Society of Canada concluded that the restriction on tanker traffic in transit along the west coast of North America from entering the Coastal Zone should be maintained for the time being?
20697. Would you agree that that’s one of the conclusions stated in this report?
20698. **MR. JOHN CLARKE:** It’s John Clarke for NRCan.
20699. I can continue to agree that those are the words that appear on the page but this is not anywhere in my -- the evidence I filed and I already explained, at the beginning of this, I only have a cursory knowledge of the documents so I can’t add much more to it except to acknowledge your reading of these words. So ...
20700. **MS. KYLE:** Okay.
20701. And when you say “the evidence that you filed”, are you referring to the response to the Gitxaala Nation information request that you referenced earlier?

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20702. **MR. JOHN CLARKE:** Yes.
20703. **MS. KYLE:** Okay.
20704. And would you agree with me that there has been -- well, actually, let's -- before we go there, let's turn to the terms of reference for the Science Panel which is at Adobe page 7, Ms. Niro.
20705. So this is attached to the same document, Appendix 1, and you'll see that it's entitled "Terms of Reference", and if you could read the highlighted portion under "Background"?
20706. And would you agree with me that, again, in this report, the Science Panel is saying -- or the Royal Society of Canada also known as the "Science Panel"-- is saying that Canada did impose a tanker moratorium on crude oil tankers in 1972?
20707. **MR. JOHN CLARKE:** It's John Clarke for NRCan.
20708. Again, those are the words on the page.
20709. **MS. KYLE:** And would you agree that there's been no errata changing the terms of reference for the Royal Society of Canada's review?
20710. **MR. JOHN CLARKE:** There is no errata that I'm aware of on my website changing this errata.
20711. Although, I will note that these errata contains the same text that is in the errata we did file on our website.
20712. **MS. KYLE:** And, Mr. Roussel, before Transport Canada provided its evidence on the tanker moratorium, did Transport Canada consider the conclusions, recommendations and terms of reference for the Royal Society of Canada review?
20713. **MR. DONALD ROUSSEL:** No, we didn't.
20714. **MS. KYLE:** Okay. Thank you.
20715. And, Mr. Clarke, are you aware that Canada prepared media lines in

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relation to the public review panel report and the Science Panel report?

20716. **MR. JOHN CLARKE:** It's John Clarke for NRCan.

20717. I believe you may have filed those in your evidence but I'm not specifically aware of them.

20718. **MS. KYLE:** Okay.

20719. And so you can anticipate where I'm going. Let's turn that up. That's Exhibit D72-15-37. Thank you, Ms. Niro.

20720. And I think, perhaps, it may be the next page, Adobe page 4 actually, Ms. Niro. Thank you.

20721. So this is document entitled "Media Lines: Release of Two Reports on the B.C. Offshore Oil and Gas Moratorium". And, Mr. Clarke, if you want to just take maybe a moment to look at this media line -- it's not very long -- and just confirm for me that these media lines are being provided in relation to the public review panel process report and the Royal Society of Canada report.

--- (A short pause/Courte pause)

20722. **MR. JOHN CLARKE:** That does -- John Clarke for NRCan.

20723. Yes, that does seem to be their scope.

20724. **MS. KYLE:** Yes, thank you.

20725. And on the next page, Ms. Niro, please?

20726. Under "Background" again we see -- if you just want to review the first paragraph under "Background" and just tell me if you agree that it states that both the federal and provincial governments imposed a moratorium on oil and gas activities and the Government of Canada also imposed a moratorium on crude oil tanker traffic through Dixon Entrance, Hecate Strait and Queen Charlotte's Sound?

20727. **MR. JOHN CLARKE:** That's what I read, yes.

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20728.           **MS. KYLE:** And would you agree that this media release does not state that the Science -- sorry, the Royal Society of Canada report and the public review panel report went beyond their respective mandates in referencing an oil tanker moratorium?
20729.           **MR. JOHN CLARKE:** It's John Clarke for NRCan.
20730.           I don't believe this is a media release, I think these are media lines.
20731.           **MS. KYLE:** Sorry, media lines. Thank you, Mr. Clarke.
20732.           But would you agree that the media lines don't state anywhere -- and certainly take your time to review it -- but they don't state anywhere that I can see that it was not within the mandates of the public review panel or the Royal Society of Canada to review and consider the tanker -- oil tanker moratorium?
20733.           **MR. JOHN CLARKE:** It's also -- John Clarke for NRCan.
20734.           If I'm reading the header correctly, it's also marked a "draft"; so I really don't know what weight to give this discussion.
20735.           **MS. KYLE:** I'm sorry, where are you -- oh, yes, "Draft for Internal Discussion". At the bottom, yes, I see that, Mr. Clarke. Okay.
20736.           But would you agree that it doesn't contain any comment that those two panels acted beyond their mandates?
20737.           **MR. JOHN CLARKE:** In a -- John Clarke for NRCan.
20738.           In a draft document that's partially redacted, you're right, I don't see those words.
20739.           **MS. KYLE:** And would you also agree that this -- these media lines, albeit they're draft, do not indicate anywhere that the public review panel or the Royal Society of Canada were incorrect in stating that there was a moratorium on oil tanker traffic off the Coast of Canada?
20740.           **MR. JOHN CLARKE:** Again, for draft media lines that are partially redacted that you filed into evidence, I don't see those words there, no.

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20741.           **MS. KYLE:** Okay.
20742.           And just to clarify, the reason they're redacted is because, when we obtain them through the Access to Information Request process, they were redacted so we had no control over that; just to clarify.
20743.           **MR. JOHN CLARKE:** Nor do I have any control over that either.
20744.           **MS. KYLE:** Yes. Okay.
20745.           **MR. JOHN CLARKE:** Thank you.
20746.           **MS. KYLE:** Thank you.
20747.           Are you aware of any statements made by Canada in relation to the Science -- sorry, the Royal Society of Canada report or the public review panel report prior to 2009 to the effect that those two panels acted outside their mandates in looking at a tanker moratorium on oil tankers?
20748.           **MR. JOHN CLARKE:** As I've said before, this is not within NRCan's filed evidence so, while I may not be aware of it, that doesn't mean it doesn't exist.
20749.           So, I'm sorry, I don't think I can give a full answer to your question.
20750.           **MS. KYLE:** Okay. Thank you.
20751.           I'd like to now turn to Exhibit D72-15-42. And that's at Adobe, I believe page 19, Ms. Niro, but I could be wrong.
20752.           Let's actually, before we go to page 19 -- is this page 19? So this is again a slide deck. It's entitled "Canada's Review of the Oil and Gas Moratorium Offshore British Columbia".
20753.           And, Ms. Niro, if you can just scroll down? It's November 25<sup>th</sup>/26<sup>th</sup>, 2004 and then, just further down, it indicates it's being provided by Natural Resources Canada.
20754.           Do you agree with that, Mr. Clarke?

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20755. **MR. JOHN CLARKE:** Yes.
20756. **MS. KYLE:** And if we -- and if we turn the page to -- I believe it is -- I'm sorry, Ms. Niro, I don't seem to have the Adobe page reference for that.
20757. If you could just scroll down about seven or eight pages?
20758. My apologies. Sorry it should still be part of that slide deck. I may have to come -- well, actually if we just scroll down a few pages maybe we can find it. That's it? Okay, we'll have to come back to that one.
20759. Okay, my very learned colleague here has pointed out that we had to divide this exhibit up it was so large. So it's the next Exhibit so D72-15-43. It's the continuation of the slide deck. And at page -- page 8, I believe. Yes, we have it. Thank you, Ms. Niro.
20760. So this is on -- part of that same NRCan slide deck -- sorry, slide deck from 2004. And this document states if you read the conclusions -- would you agree that NRCan there is indicating that one of the conclusions of the science panel, or the Royal Society of Canada panel, was that the "transit tanker traffic ban in coastal zones should be maintained for the time being"?
20761. **MR. JOHN CLARKE:** Those are the words on the slide, yes.
20762. **MS. KYLE:** And Mr. Roussel, in providing the evidence on the tanker -- sorry on the -- yes, on the tanker moratorium in December 2011, did Transport Canada consider or review any of these materials that were -- sorry prepared by Canada in relation to the Royal Society of Canada and public panel review process?
20763. **MR. DONALD ROUSSEL:** No we didn't, madame.
20764. **MS. KYLE:** Okay, thank you.
20765. And I guess both Mr. Clarke and Mr. Roussel, and anybody else who would like to chime in on this, are you aware that there are members of the Canadian public who have raised questions and concerns about the existence of a tanker moratorium off the west coast of B.C. and its effect on the proposed Northern Gateway Pipeline's Project?



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20766.           **MS. ANDERSON:** Madam Chair, if I might interject. I wonder if my friend could rephrase her question to one that's more specific. It's such a broad question to ask.

20767.           I think it might help the witnesses if it could be narrowed down to if there are concerns or confusion expressed by a particular group, that would probably be helpful to the witnesses.

20768.           **MS. KYLE:** Okay I'm happy to do that.

20769.           Are you aware that a former Member of Parliament, David Anderson, has raised concerns about the fact that in his view there is an oil tanker moratorium that was put in place when he was in Cabinet and that the Northern Gateway Pipeline Project is inconsistent with that moratorium?

20770.           **MR. DONALD ROUSSEL:** I'm aware of the statement of Mr. Anderson and I did see the TV interview on these matters, Madame Chair.

20771.           **MS. KYLE:** I just wanted to turn to a letter that was provided by Mr. Anderson that has been filed as evidence. It's D72-15-46, Ms. Niro, and that's at Adobe page 5.

20772.           So if you could just take a moment, Mr. Roussel, to review this letter from Mr. Anderson.

--- (A short pause/Courte pause)

20773.           **MS. KYLE:** And Mr. Roussel, would you agree that in this letter at the time Honourable David Anderson raised some concerns about the -- what he refers to as the Enbridge pipeline between Alberta and the B.C. northwest coast because of the fact that in his view there was a moratorium placed on tanker movements in Canadian waters off the northeast Pacific for 35 years. Do you agree that that's what he's saying in this letter?

20774.           **MR. DONALD ROUSSEL:** That's what's written in this letter, Madame Chair.

20775.           **MS. KYLE:** And would you agree that he's also referencing the conclusions of the Priddle report in relation to that oil shipping moratorium?

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20776.           **MR. DONALD ROUSSEL:** The title of the Priddle report is it the Royal Society of Canada report?
20777.           **MS. KYLE:** That's actually the public review panel, report is the Priddle Report.
20778.           **MR. DONALD ROUSSEL:** Yes, that's what this letter said, Madam.
20779.           **MS. KYLE:** Yes, thank you.
20780.           And if we can turn to the response that was provided to Mr. Anderson at the time, which is Exhibit D72-15-46. Thank you and it's Adobe page 2. Actually no, I think you had it. You know better than me what page I want to be on.
20781.           I think it actually is supposed to be in Exhibit D72-15-46, Adobe page 2. There I think that's it. It's a -- yes that's the letter I was looking for. Thank you, Ms. Niro.
20782.           So I just -- this is a letter to David Anderson, MP at the time, from the Minister of Natural Resources Canada. So perhaps this is better directed to Mr. Clarke. But if you can look at the fourth paragraph of that letter, at the very end of the first page; if you could just read that for me please?
20783.           And would you agree that in that paragraph Minister Efford appears to be referring to the TAPS routing that we referenced earlier in this cross-examination?
20784.           **MR. JOHN CLARKE:** It's John Clarke for NRCan.
20785.           And I'll start by responding and say yes I see that the word "TAPS" appears there but my knowledge of TAPS is very limited, so if Transport Canada has anything to add of course they can.
20786.           **MS. KYLE:** Okay. Mr. Roussel, would you agree that Minister Efford appears to be referring to the TAPS routes in the fourth paragraph?
20787.           **MR. DONALD ROUSSEL:** That's what he's talking about in -- which date is it, 2005?

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20788.           **MS. KYLE:** Yes August 26<sup>th</sup> 2005 is this letter. And the TAPS routes is the route that we talked about earlier that was put in place in 1977; correct?
20789.           **MR. DONALD ROUSSEL:** Yes.
20790.           **MS. KYLE:** And if we can go to the next page please, Ms. Niro?  
Thank you.
20791.           And if you would read the paragraph at the top of that page please?
- (A short pause/Courte pause)
20792.           **MS. KYLE:** I guess I'll start with Mr. Clarke and we can turn to Mr. Roussel if need be.
20793.           But would you agree that Minister Efford here is stating that, in his view, although the -- there was a recommendation made in the Priddle report, and although the Royal Society of Canada referred to present restrictions on transit tanker movement in the report, the scope of the federal review process was limited to examining the current moratorium on oil and gas activities? Do you agree that that's what he's saying?
20794.           **MR. JOHN CLARKE:** No. It's John Clarke for NRCan.
20795.           I do think you might have misspoken. Could you repeat your question again please just so I'm sure?
20796.           **MS. KYLE:** Certainly. And I may well have so. I'm happy to do that.
20797.           Would you agree that in that paragraph, Mr. Efford is indicating that although the Royal Society of Canada referred to a restriction on tanker movement in its report, the scope of the review process was limited to examining the moratorium on oil and gas activities in the Queen Charlotte Basin?
20798.           **MR. JOHN CLARKE:** Yes. John Clarke for NRCan. That's what sentence says.
20799.           **MS. KYLE:** Okay. And would you agree with me that that statement

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appears to be inconsistent with the Terms of Reference that we just looked at for the Royal Society of Canada review, as well as the Terms of Reference for the public review process?

20800.           **MR. JOHN CLARKE:** Yes -- John Clarke for NRCan -- it does seem, at this point, that the error had been noted.

20801.           **MS. KYLE:** All right. So this is 2005 when the issue is being raised specifically in the context of Northern Gateway pipelines; that's when the error was first noted?

20802.           **MR. JOHN CLARKE:** John Clarke for NRCan.

20803.           No, that's not what I said.

20804.           **MS. KYLE:** No, I'm just asking, is that when the error was first noted, was when the question of the moratorium was being raised in the context of the proposed Northern Gateway Pipelines Project?

20805.           **MR. JOHN CLARKE:** John Clarke for NRCan.

20806.           I don't know when the error was first noted so I can't say -- I'm not saying one thing -- I'm not answering that question one way or the other. I'm sorry, I don't know when the error was first noted and by whom.

20807.           **MS. KYLE:** Okay. Thank you.

20808.           **THE CHAIRPERSON:** Ms. Kyle, I don't know how much more you have in this area. I notice that it is past 3:30. Is this -- you look like you have pages there. I just wonder is this a convenient time to stop for the day?

20809.           **MS. KYLE:** I do note your comments earlier, Madam Chair, about breaking at 3:30 today. I would be able to finish if we were able to sit until 4 but I'm in your hands if you do need to adjourn now.

20810.           **THE CHAIRPERSON:** Thank you for the updated time estimate.

20811.           We will adjourn for the day today and come back tomorrow morning at 8 o'clock in the morning.

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20812. Thank you very much, everyone.

20813. **MS. KYLE:** Thank you, Madam Chair.

20814. **THE CHAIRPERSON:** Good evening.

--- Upon adjourning at 3:33 p.m./L'audience est ajournée à 15h33



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Contract Number / Numéro du contrat

84084-13-0109

Security Classification / Classification de sécurité  
UNCLASSIFIED

SECURITY REQUIREMENTS CHECK LIST (SRCL)

LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE			
1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine National Energy Board		2. Branch or Directorate / Direction générale ou Direction Management Services	
3. a) Subcontract Number / Numéro du contrat de sous-traitance		3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant	
4. Brief Description of Work / Brève description du travail Verbatim Reporting Services			
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui	
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui	
6. Indicate the type of access required / Indiquer le type d'accès requis			
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)		<input type="checkbox"/> No Non <input checked="" type="checkbox"/> Yes Oui	
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui	
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui	
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès			
Canada <input checked="" type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>	
7. b) Release restrictions / Restrictions relatives à la diffusion			
No release restrictions Aucune restriction relative à la diffusion <input checked="" type="checkbox"/>	All NATO countries Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>	
Not releasable À ne pas diffuser <input type="checkbox"/>			
Restricted to: / Limité à: <input type="checkbox"/>	Restricted to: / Limité à: <input type="checkbox"/>	Restricted to: / Limité à: <input type="checkbox"/>	
Specify country(ies): / Préciser le(s) pays:	Specify country(ies): / Préciser le(s) pays:	Specify country(ies): / Préciser le(s) pays:	
7. c) Level of information / Niveau d'information			
PROTECTED A PROTÉGÉ A <input type="checkbox"/>	NATO UNCLASSIFIED NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A PROTÉGÉ A <input type="checkbox"/>	
PROTECTED B PROTÉGÉ B <input checked="" type="checkbox"/>	NATO RESTRICTED NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B PROTÉGÉ B <input type="checkbox"/>	
PROTECTED C PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C PROTÉGÉ C <input type="checkbox"/>	
CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	NATO SECRET NATO SECRET <input type="checkbox"/>	CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	
SECRET SECRET <input type="checkbox"/>	COSMIC TOP SECRET COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET SECRET <input type="checkbox"/>	
TOP SECRET TRÈS SECRET <input type="checkbox"/>		TOP SECRET TRÈS SECRET <input type="checkbox"/>	
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**PART A (continued) / PARTIE A (suite)**

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? ☒ No ☐ Yes  
Non Oui

If Yes, indicate the level of sensitivity:  
Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? ☒ No ☐ Yes  
Non Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :

Document Number / Numéro du document :

**PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)**

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

☒ RELIABILITY STATUS  
COTE DE FIABILITÉ  
  
☐ TOP SECRET - SIGINT  
TRÈS SECRET - SIGINT  
  
☐ SITE ACCESS  
ACCÈS AUX EMPLACEMENTS

☐ CONFIDENTIAL  
CONFIDENTIEL

☐ NATO CONFIDENTIAL  
NATO CONFIDENTIEL

☐ SECRET  
SECRET

☐ NATO SECRET  
NATO SECRET

☐ TOP SECRET  
TRÈS SECRET

☐ COSMIC TOP SECRET  
COSMIC TRÈS SECRET

Special comments:

Commentaires spéciaux :

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.

REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?  
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail? ☒ No ☐ Yes  
Non Oui  
If Yes, will unscreened personnel be escorted?  
Dans l'affirmative, le personnel en question sera-t-il escorté? ☒ No ☐ Yes  
Non Oui

**PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)**

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?  
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS? ☐ No ☒ Yes  
Non Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets?  
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC? ☒ No ☐ Yes  
Non Oui

PRODUCTION

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?  
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ? ☒ No ☐ Yes  
Non Oui

INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?  
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS? ☐ No ☒ Yes  
Non Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?  
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale? ☒ No ☐ Yes  
Non Oui

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Canada



Government of Canada  
Gouvernement du Canada

Contract Number / Numéro du contrat

84084-13-0109

Security Classification / Classification de sécurité

UNCLASSIFIED

**PART C - (continued) / PARTIE C - (suite)**

For users completing the form manually use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.

Les utilisateurs qui remplissent le formulaire manuellement doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form online (via the Internet), the summary chart is automatically populated by your responses to previous questions.

Dans le cas des utilisateurs qui remplissent le formulaire en ligne (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

**SUMMARY CHART / TABLEAU RÉCAPITULATIF**

Category Catégorie	PROTECTED PROTÉGÉ			CLASSIFIED CLASSIFIÉ			NATO				COMSEC					
	A	B	C	CONFIDENTIAL CONFIDENTIEL	SECRET	TOP SECRET TRÈS SECRET	NATO RESTRICTED NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET COSMIC TRÈS SECRET	PROTECTED PROTÉGÉ			CONFIDENTIAL	SECRET	TOP SECRET TRÈS SECRET
											A	B	C			
Information / Assets Renseignements / Biens Production		✓														
IT Media / Support TI		✓														
IT Link / Lien électronique																

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?

La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

☒ No  
Non

☐ Yes  
Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".

Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?

La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

☒ No  
Non

☐ Yes  
Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).

Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquez qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).