



April 9, 2019

Tyler Horton  
Project Manager - Upstream  
Imperial Oil Environmental and Property Solutions (Imperial Oil)  
505 Quarry Park Blvd S.E.  
Calgary, AB T2C 5N1

Dear Mr. Horton:

**RE: N5L8-1841 – IMPERIAL OIL ENVIRONMENTAL AND PROPERTY SOLUTIONS  
(IMPERIAL OIL) – TUK BASE REMEDIATION - WATER LICENCE APPLICATION**

The Inuvialuit Water Board (IWB) acknowledges receipt on March 28, 2019 of the proposed Tuk Base Remediation water licence application package. The IWB has completed an initial review of the application package and as a result, additional information is required for the IWB to deem the application complete.

Please provide the following information:

1. Schedule C, section 11 - functions of the contractors and sub-contractors; including number of field crew; number and type of construction equipment to be used.
2. Tuk Base Waste Management Plan:
  - a. Description of former sewage lagoon (e.g. length, width, depth, quantity of sewage, sampling procedure and rate, timing, frequency and duration of discharge into the receiving environment);
  - b. Site Plan, Fig No. 3 - indicate effluent discharge point of former sewage lagoon including Global Positioning System (GPS) coordinates (DMS) (Note: due to inconsistencies between individual GPS units, Google Earth latitude and longitude should be utilized as the GPS points);
  - c. Site Plan, Fig No. 3 – indicate north and south landfills including associated GPS coordinates;
  - d. Site Plan, Fig No. 3 - indicate locations of the material processing areas and PHC – impacted soil treatment cells;
  - e. Tabular summary of estimated quantity and locations for temporary storage and final disposal (including timing and frequency of disposal) of each waste type (e.g. barge sewage and solid wastes, hazardous waste, contaminated soil, and other waste type);
  - f. A project specific incinerator management plan and outline of the incineration steps, ash containment and final disposal;
  - g. Estimated amount of excavated soil and sheet piling to be obtained from dock removal activities and their management details;
  - h. A copy of each agreement(s) or letters between the water licence applicant and third parties where the third party has agreed to store, transport or dispose of each type (also barge camp wastes) of waste including:
    - i. Type and quantities of waste; and
    - ii. Disposal location(s) and proof of acceptance from third parties.

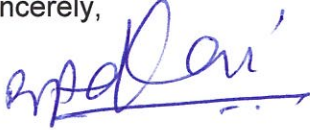
3. Tuk Base Spill Contingency Plan:
  - a. Effective date of plan, distribution list and details on how to obtain additional copies of the plan;
  - b. Map(s) showing the following: buildings, roads, culverts, airstrips and other infrastructure; all surface water bodies and direction of water flow including catchment basins; storage locations of each hazardous material; probable spill locations and direction of flow on land and in water; locations of all response equipment; environmentally sensitive areas; any approved disposal sites; topography; and any other important on or off-site features;
  - c. List of type and amount of hazardous materials normally stored on-site, the storage capacity and the type and number of storage containers. The storage locations for each of these materials should appear on the map of the site;
  - d. Company contact information for media and public enquiries;
  - e. Identify personnel, their duties, on or off-site work locations and contact information, including 24-hour telephone numbers for those responsible for activating the plan;
  - f. Page 6, Figure A - Boxes 4 and 9: include supervisor's name and phone number;
  - g. Summary of available communication equipment;
  - h. Page 3, section 2.0 – include potential spill sizes of each source;
  - i. If the public may be impacted by a spill, include notification procedures to alert the public;
  - j. Procedures for transferring, storing, and managing spill-related wastes; and
  - k. As mentioned on page 14, section 7.2, "Table A" not included.
4. Tuk Base Erosion and Sediment Control Plan:
  - a. Site Plan, Fig No. 3 - indicate north and south landfills including associated GPS coordinates.
5. Tuk Base Permafrost Monitoring Plan:
  - a. Page 2 - paragraph 2 - line 2 states "the thermistor locations are noted on Figure 4", however Figure 4 has not been included. Figure 4 is required; and
  - b. As indicated on page 5, section 3.5, bullet 1 - provide details of new thermistors including location map.
6. Tuk Base Remedial Action Plan:
  - a. Page 1, section 1.2 - include Dock removal and repair strategy;
  - b. Page 14, section 2.6.1.2, bullets 1 and 2 – indicate background monitoring wells P01-2 and P10-2 on 2015 - 2018 Phase II Sampling Locations Fig No.5;
  - c. As indicated on page 22, section 4.1, paragraph 4, provide a design of the engineered contaminated soil treatment cell, signed and stamped by a professional engineer registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists; and
  - d. Page 37, section 7 – provide a summary and records of the consultation with the Tuktoyaktuk and Inuvik Hunters and Trappers Committee and Community Corporation.
7. A detailed Project Description Report (PDR).
8. A Closure, Reclamation and Monitoring Plan (CRMP).

Please submit two (2) hard copies and two (2) electronic copies (CD's or USB's) of the additional information requested in order for the IWB to continue processing the application in a timely

manner. The submitted documentation, including all related IWB correspondence, will be placed on the IWB Public Register.

Should you have any questions regarding this letter, contact me at 867-678-8610 or [adhikarib@inuvwb.ca](mailto:adhikarib@inuvwb.ca) or Mardy Semmler, Executive Director, at 867-678-8609 or [semmlerm@inuvwb.ca](mailto:semmlerm@inuvwb.ca).

Sincerely,



Bijaya Adhikari, PhD  
Science and Regulatory Coordinator

cc: Dr. Julia Krizan, Senior Biologist / Arctic Ecosystems Office Manager & Director -  
IMG-Golder Corporation



April 10, 2019

Tyler Horton  
Project Manager - Upstream  
Imperial Oil Environmental and Property Solutions (Imperial Oil)  
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Dear Mr. Horton:

**RE: N5L8-1841 – IMPERIAL OIL ENVIRONMENTAL AND PROPERTY SOLUTIONS –  
TUK BASE REMEDIATION - WATER LICENCE APPLICATION**

The Inuvialuit Water Board (IWB) is received the “Preliminary Project Description – Tuk Base Remediation” and the “Reclamation, Closure and Monitoring Plan – Tuk Base” on April 9, 2019. The IWB has completed an initial review of the submitted documents as a result, further additional information is required for the IWB to deem the application complete. The additional information requested on April 9, 2018 is also required.

Please provide the following information:

1. A finalized detailed Project Description Report (PDR).
2. Reclamation, Closure and Monitoring Plan – Tuk Base:
  - a. Page 5, section 3.1.5 – include a map showing all groundwater monitoring wells (GMW) including background monitoring wells MW-L-05, P01-2, MW-BG-01 and P10-2;
  - b. Site Plan, Fig No. 3 – indicate north and south landfills including associated Global Positioning System (GPS) coordinates in degrees, minutes, and seconds (DMS);
  - c. Site Plan, Fig No. 3 - indicate effluent discharge point of former sewage lagoon including GPS coordinates in DMS;
  - d. Site Plan, Fig No. 3 - indicate locations of the material processing areas and the PHC – impacted soil treatment cells;
  - e. As described on page 11, section 4.5.1 - include a design and drawing of the engineered contaminated soil treatment cell, signed and stamped by a professional engineer registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists;
  - f. Page 16, section 5.1 – replace “NWTWB” with “Inuvialuit Water Board (IWB)”;
  - g. Page 17, section 5.1.2 – include a map showing existing GMW located outside the excavation footprint;
  - h. Page 17, section 5.1.2 – as mentioned include “Section 4.1.5”; and
  - i. Page 17, section 5.1.5 – include a map showing all thermistor locations.

Please submit two (2) hard copies and two (2) electronic copies (CD's or USB's) of the additional information requested in order for the IWB to continue processing the application in a timely manner. The submitted documentation, including all related IWB correspondence, will be placed on the IWB Public Register.

Should you have any questions regarding this letter, contact me at 867-678-8610 or [adhikarib@inuvwb.ca](mailto:adhikarib@inuvwb.ca) or Mardy Semmler, Executive Director, at 867-678-8609 or [semmlerm@inuvwb.ca](mailto:semmlerm@inuvwb.ca).

Sincerely,

A handwritten signature in blue ink, appearing to read "Bijaya Adhikari".

Bijaya Adhikari, PhD  
Science and Regulatory Coordinator

cc: Dr. Julia Krizan, Senior Biologist/Arctic Ecosystems Office Manager & Director -  
IMG-Golder Corporation