



**Jody Crawford**  
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April 8, 2020

Bonnie Bergsma  
Sahtu Land and Water Board  
Regulatory Specialist  
P.O. Box 1  
Fort Good Hope, NT  
X0E 0H0

**Re: Temporary Modification  
Type A Water Licence S13L1-007  
Imperial Oil Resources N.W.T. Limited (Imperial)**

Dear Ms. Bergsma,

Imperial is submitting this request for a temporary modification to Water Licence S13L1-007 to allow for the withdrawal and discharge of water from the Mackenzie River at the end of the Bulk Fuels unloading dock (as shown on Attachment 1) starting in July 2020. An access point to the river will be chosen to minimize impact to shoreline vegetation.

The water withdrawn at this location will fall within the total allowable annual water withdrawal limit and daily maximum rate outlined in Water Licence S13L1-007. Water will be used for a tank hydrotest activity following tank repair work on a fuel storage tank (Tk104) within the Mainland Tank Farm (as shown on Attachment 1). A hydro test involves filling the tank with water before it is used to confirm the success of the repairs and that there are no leaks or integrity concerns.

Around mid-June, the tank will be cleaned and gas-freed to ensure that water will not come into contact with any contaminated product. Repairs on the tank are expected to be completed by mid-July. The tank hydrotest activity is scheduled between July 16<sup>th</sup> and August 31<sup>st</sup>, which will occur outside of the applicable Department of Fisheries and Oceans restricted activity timing window (September 15 – July 15 for NWT Zone 1). Upon initiating the hydrotest, Imperial will provide the Inspector with the anticipated timeline for sampling and discharge.

To minimize environmental impact, water will be withdrawn through a clean suction hose (only used for water) that is equipped with a fish screen. The withdrawal location used has existing road access which will mitigate vegetation disturbance. Secondary containment will be placed under any fuel containing equipment (e.g. pumps), and vehicles will be staged away from water. Volumes withdrawn will be measured with a flowmeter and by periodic verification via tank gauging and reported in the monthly SLWB water report. Water samples will be collected at the intake location during initial, middle, and final filling.

Upon completion of the tank hydrotest and prior to discharge, water samples will be taken from the bottom, middle, and top portions of the tank. Water quality in the tank will be compared to intake water quality to ensure no significant differences. Where differences are noted, metals samples will be compared to metals CCME Freshwater Aquatic Life criteria outlined in the table below. Samples will also be required

to meet discharge criteria outlined in Part E of Water Licence S13L1-007 and shown below (for hydrocarbons, phenols, chlorides, and pH). Imperial will provide the results of the water quality testing to the Inspector 24 hours prior to initiating discharge.

<b>Parameter</b>	<b>Applicable Average Concentration Reference Criteria (mg/L)</b>	<b>Applicable Grab Sample Reference Criteria (mg/L)</b>
Total Petroleum Hydrocarbons	3.0	5.0
Phenols	0.07	0.14
Chloride	250	500
pH	6.0 – 9.0	6.0 – 9.0
Aluminum		-
Antimony		-
Arsenic		0.005
Barium		-
Beryllium		0.0053
Boron		1.5
Cadmium		-
Chromium (VI)		0.001
Chromium (III)		0.0089
Cobalt		-
Copper		-
Iron		0.3
Lead		-
Manganese		-
Mercury (inorganic)		0.000026
Methylmercury		-
Molybdenum		0.073
Nickel		-
Selenium		0.001
Silver		0.00025
Zinc		-
Uranium		0.015
Vanadium		-

The hydrotest water is proposed to be discharged to the Mackenzie River at the end of the Bulk Fuels unloading dock (as shown on Attachment 1). The estimated discharge volume is 6800 m<sup>3</sup> (or about 0.2% of the yearly S13L1-007 total allowable water withdrawal limit) with a proposed maximum daily discharge rate of 5100 m<sup>3</sup>/day.

Water will be filtered and discharged through a clean hose (only used for water). Secondary containment will be placed under any fuel containing equipment (e.g. pumps), and vehicles will be staged away from water. The water will be discharged in a controlled manner to prevent flooding and erosion. Volumes discharged will be measured with an inline flowmeter and by periodic verification via tank gauging and reported in the monthly SLWB water report.

If you require further information, please contact Christine Wickens at 587-476-5007 or [christine.a.wickens@exxonmobil.com](mailto:christine.a.wickens@exxonmobil.com).

Sincerely,

A handwritten signature in blue ink that reads "C Wickens". The signature is written in a cursive, slightly slanted style.

Christine Wickens  
Environment and Regulatory Advisor  
Imperial

# Attachment 1

